

PRACTICAL CASES

A N D

OBSERVATIONS

I N

S U R G E R Y,

W I T H

REMARKS highly Proper,

Not only for the IMPROVEMENT

O F A L L

YOUNG SURGEONS,

B U T A L S O

For the DIRECTION of such as are
Farther advanced.

By DALE INGRAM,
Surgeon and Man-Midwife.

*Inuide quid tentas abrodere mordicus unguis,
Vel mea ne carpas scripta, vel ede tua. CELSUS.*

L O N D O N:

Printed for J. CLARKE, under the Royal-Exchange.
MDCCLI.

PRACTICAL CASES.

AND

OBSERVATIONS

IN

SURGERY.

WITH

REMARKS highly Proper,

Not only for the Improvement

OF ALL

YOUNG SURGEONS,

BUT ALSO

For the DIRECTION of such as are
Further advanced.

By JACOB INGRAM,

Surgeon and Master Surgeon.

London: Printed by J. Smith, in Strand, near St. Dunstons Church, 1770.

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To the Right Honourable

FRANCIS COKAYNE, Esq;
LORD-MAYOR,

THE

Worshipful the ALDERMEN,

And the Rest of

The GOVERNORS of the several HOSPITALS
of the City of LONDON.

My Lord and Gentlemen,

WHEN I resolved on
the Publication of the
following Work, I did not in
the least hesitate in my Choice of
Patrons; for to whom should
Attempts for the Improvement
of useful Professions fly for Sanc-
tuary and Protection, but to

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that

that august and venerable Body of Men, who are at once the Guardians and Ornaments of that Community over which they preside, with so much Equity and Humanity, that Poverty and Indigence find a Shelter in their generous Bosom, and can depend upon having their Grievances redressed as effectually as the Rich and Opu-
lent.

I need not tell Men of your Judgment, that the Glory, the Prosperity and Happiness of a Community, consist in the Number of its Members; for the Multitude creates Necessity, Necessity lays a Foundation for Industry, and Industry is the immediate Parent of Affluence,
and

and of every other Thing, that can either render a Community happy in itself, or respected by others. 'Tis therefore obvious, that an Effort to preserve the Lives and Healths of the Members of a Society, is in reality the most effectual Method to aggrandize and enrich it. --- I conceive it will hardly be denied that Surgery is, of all other Arts, the best calculated for answering this noble Design; since without its timely Assistance, Numbers of those laborious and indefatigable Sons of Industry, over whom you preside, would not only have their Lives cut short perhaps in the Bloom of Youth, but also die under the most inexpressible Agonies.

But why should I insist upon so obvious a Truth, of which your awful Body entertains so deep and tender a Sense? For this I might appeal to the several Hospitals under your Protection and Guardianship, to the Accommodation you have furnished for the Patients, to the necessary Provisions you have made against their Wants, and to your Care and Judgment in appointing humane and skillful Surgeons for their Relief.

These amiable Dispositions induce me to believe, that you will give a kind and favourable Reception to the subsequent Production, entirely designed to promote your noble and exalted

ed Purposes of Mercy, Compassion and Relief to the distressed.

As it would be monstrous in an Author to make himself the Hero of his Dedication, or pretend to a Degree of Perfection superior to that of his Neighbours, I shall only say of the Cases and Observations themselves, that some of them are entirely new and uncommon, that they are related without Artifice or Vain-glory, that every Circumstance is narrated in its proper Order, and precisely as it happened, and that the several Dressings, Regimens and Medicines employed for obtaining a Cure, are fairly and distinctly specified. If these are lau-

able Qualities in a practical Surgeon, I flatter myself, or rather am persuaded, that you will pardon this Address, and permit me to say, that I am sincere when I assure you, that

I am,

My LORD and Gentlemen,

With the utmost Respect,

Your much Obliged, and

Obedient Humble Servant,

Tower-Hill,
29 Jan. 1751.

DALE INGRAM.

PREFACE.

WE generally find, that great Pretensions to Perfection are often no more in the Event, than irrefragable Proofs either of palpable Ignorance, or, to speak more modestly, so many Arguments, shewing that absolute Perfection cannot be attained to, even in the most diminutive and insignificant Branches of Business. It must indeed be confessed, that some Arts have made farther Advances than others; but this Circumstance depends rather on the Nature of particular Employments, than the Industry and Ingenuity of their Followers. Thus for instance, it is far more easy to arrive at a competent Dexterity in some of the common Arts, than to form a Machine which shall

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with

with invariable Accuracy measure Time, and shew us how many Hours, Minutes, Seconds, &c. have intervened between one Period and another. But supposing that all the Arts which are purely mechanical, could be brought to Perfection, which I am afraid is impossible; yet certainly there are other Professions which must remain as it were in their Down, so long as this World exists: Among this last Class we may justly reckon Mathematics, Physic and Surgery. Tho' in each of these, vast Discoveries have been made, yet what an unbounded Abyss lies before their respective Professors? What they do know, is no more in Comparison of what they ought to know, than a single Atom is, in Comparison of the infinite Expanse. Tho' this be the genuine State of all Professions, especially those of the liberal Kind, yet this Circumstance should be so far from discouraging Us in our Pursuits, that it ought to fire our Breasts with a noble Ardour to add one Degree

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of

of Perfection to another. Accordingly the Mathematician labours for the Discovery of the Longitude and the Quadrature of the Circle, and the Physician is impatient to know wherein the genuine and latent Principle of Life consists. In this respect the Surgeon has the manifest Advantage of the other two; since he aims at no one particular Point, farther than the Cure of his Patient, which in many Cases may be obtained by an accurate Knowledge of the Parts he operates upon, and a sufficient Degree of Consideration and Experience. As this is the Case, we may justly be surprized, that Surgery has made no greater Advances than to be looked upon as something not only precarious and uncertain, but even as a Kind of Jest contrived to drain the Pockets and amputate the Limbs of Mankind. 'Tis more than probable that this Misfortune proceeds from a Complication of Causes, which may be reduced to the Ignorance, the hypothetical Turn, the Negligence or the Pride of its Professors. As

As for the First, 'tis certain that nothing has a more direct Tendency to bring any Art into Discredit, than the Ignorance of its Professors. But this Discredit is still heightened, and as it were mingled with Rancour, Indignation and Resentment, when People reflect, that their Lives are by this Means exposed to imminent, and too often irretrievable Danger.

As for the Second, namely, the hypothetical Turn of Surgeons, I am afraid it has done more Havock than the World is aware of, and killed more of his Majesty's Subjects, than all the practical Surgeons within his Dominions have saved. Hypotheses in Affairs that don't affect Life are pardonable, because they are often useful and advantageous; but when a Surgeon either invents or adopts a Theory, or runs mad after French quack Medicines, not established on the Success of a particular Practice, and regulates his Conduct on that Theory, he acts the Part of a Butcher.

As

As to the Third, namely, the Negligence of Surgeons, it is no less criminal in itself, no less fatal to the Patient, and no less adapted to bring the Profession into Contempt than the former. This Negligence may consist in two Things; either in the Defect of sufficient Pains to investigate the real Cause, and trace the true Symptoms of a Disorder, or in the Want of due Attendance on the Patient, to observe what Vicissitudes the Disease takes, in order to vary the Measures according to their different Appearances. What Comfort for instance is it for a Man of a liberal Fortune to think, that he has employed a Surgeon of Skill and Reputation to treat his only Son, in any Disorder, when in the Result he finds himself deprived of the hopeful Youth, who was to have been the Joy of his remaining Years? 'Tis therefore certain that Skill, great Consideration, and a closer and more punctual Attendance than is usually given, are necessary and indispensable Ingredients

defects in the Character of a good Surgeon.

As to the Fourth, I mean that Species of Pride, which, too often I am afraid, renders a Man self-sufficient, wrapt up in his own Judgment, deaf to the Remonstrances of others, and incapable of acknowledging his Error; this is a Turn of Mind highly prejudicial in all Professions of Life, but in none more fatal than in the Practice of Surgery; for when a Surgeon of this Character has committed an Error, which is perhaps fatal to the Life of his Patient, he is so far from confessing his Mistake and Inadvertency, that he not only endeavours to alleviate his Crime, but obstinately attempts to justify his Practice, and shew it to be regular, safe and rational. By these Means the unwary and unthinking not being on their Guard, are so grossly misled, that they conclude the like Measures are absolutely to be taken in all Cases of a similar Nature; and thus one single Error may lay a fatal

fatal Foundation for many subsequent Mistakes. Whereas if instead of such Arrogance he had acted the Part of Vesalius in a Case of great Importance, and candidly confess'd his Error, this Acknowledgment would have bespoke a gentlemanly Turn of Mind, and served as a Beacon or Warning for other Surgeons to avoid the Rock on which he split. This was the Method of Hippocrates and all the venerable Ancients, whose Candour induced them to acknowledge their Errors as readily as to record their Success.

I wish from my Heart, we could boast that England was equal to Greece or Rome in this respect; then indeed we might expect many more Improvements in our Art, instead of sanguine Disputes and Controversies about Points of no Moment, wire-drawn Speculations, and an obstinate Adherence to Principles which are no less contradictory to those of Surgery, than fatal to the Lives of the Patients.

Surely

Surely such Actions can neither be profitable to the Community, nor bring Honour to our noble Art; it was this that made the great Doctor Radcliff distinguish this Class of Men by the Name of Talking Surgeons; and this ingenious and judicious Gentleman very wittily also made a Distinction between such as really cured, and such as only talked. The former he says are Blessings to their Country, since without chattering about the Propriety and Impropriety of particular Measures, they seriously cast about in their own Minds for the Means of affording Relief, where a perfect Cure cannot be had; and restoring total Soundness where it is to be obtained. Such a Surgeon thinks it not worth his while, either to amuse a Patient or to attract a Ring of gaping Listners in a Coffee-house, by uttering an unintelligible Rhapsody of learned Jargon; but he employs his time to better Purpose in consulting the Habit of his Patient's Body, the State and Symptoms of his

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Disorder, the Way to make his Mind easy, and the most effectual Method of checking the Impulses of Nature where they are too strong, invigorating them where they are too languid, and going as it were hand in hand with them, where they gently travel, if I may so speak, in the right Road. But how opposite is this to the talking Surgeon, who boasts of his penetrating Knowledge, harangues his Patient, and weakly imagines that an obstinate Disorder must understand his Overflow of Learning, and submissively obey his masterly Command. But such self-sufficient Boasters will find the Disease is deaf to their Call, despises their imaginary Theories, and can only be removed by the thinking and acting Surgeon.

Such daring Boldness demands our Pity; and often have I blushed for this last Class of Men, the talking Surgeons, when they have attempted to shew their Skill in the Profession without any real Foundation, or even Experience, the

a Want

Want of which is filled up with overbearing and vain Glory, which like presumptuous Phaeton would, if possible, set the Body of Surgeons on fire, as they never can be in Fear who know no Danger; but the most skilful are always the most cautious. The Country Surgeons most commonly become the Butt of their Banter and Ridicule; tho' these are often found to have more Honesty and Knowledge, and therefore less deserve the Contempt of the former; yet they are treated as Beings of a different Species from themselves, or as if they were formed by different Hands and unworthy to breath the same Air, or tread upon the same Ground. I once had the Pleasure of seeing one of these chattering theoretical Persons severely mortified, and justly chastised for his Ignorance in the Profession. This vain Boaster accidentally meeting with a Country Surgeon in a London Coffee-house, and fondly embracing the Opportunity to display his Learning before a numerous Audience,

Audience, sallied forth with his Rhetoric upon the honest Countryman, whose Knowledge, tho' much superior, was veil'd with Modesty, which by the injudicious is often mistaken for Want of Skill. Emboldened with finding so much Modesty, the Theorist triumphs. It happened some little time after this false Fire, that his touring Thoughts dragged him into the Country, where his genteel Dress and overbearing Conversation made him be looked upon as a Man of no small Importance in his Profession; Accordingly he was called in to treat even a very simple Case in a Family of some Note; but to the great Disappointment of the Family, and to his own irretrievable Disgrace, after he had brought the Patient to the Point of Death, he pronounced the Disorder no less than incurable. Upon this melancholy Sentence, recourse was had to their own plain Country Surgeon, who was the very Man abused in London, and who examining the whole State of the Disorder from its Beginning to that Time,

was surprised that it had not been cured in three or four Days: However he set to work, did his best, and in a few Days not only put the Patient out of all Danger, but in a great Measure obtained a perfect Cure. Whereupon he desired the Gentleman to send for the Boaster, who had the first Management of his Son; some Neighbours of Reputation were invited to be present at the Interview between the two Surgeons; the Theorist was confounded to meet the very Man he had lately abused in London, whilst the other recriminated, not in a brutal and bullying Manner, but rather with that just Severity and Indignation with which a Father reprimands a Son for his Ignorance and Errors in Conduct. This Story brings to my Remembrance two celebrated Lines somewhere in Dryden.

Knaves by rebound are often bit,
To bite the Biter is not Fraud but Wit.

Let me here observe, that tho' Men
of Modesty and Merit may sometimes be
over-

overborn by those of insolent and wanton Tempers, yet such is the Course of all-bounteous Providence, that she rarely fails, some time or other, to crown the former with Glory and Renown, while the latter are generally sunk in Oblivion, or loaded with Infamy and Contempt.

But after all this Clamour against Country Surgeons, what would the Authors be at, or what do they mean? as for my own Part I cannot possibly find out what harm they do to these pedantic Theorists. But let us argue the Case with Fairness and Candour, for surely if such talking Gentlemen are Strangers to these Virtues, they must at least have Learning enough to understand the Meaning of the Words. Suppose then the Country Surgeons are more ignorant of their Art, than the Celsus's the Vesalius's and the Albinus's in London (which is far from being true) you can only impute it to one or other, or perhaps a Concurrence of all the three following Causes;

1. *Native Stupidity.*
2. *Want of acquired Learning.*
3. *Want of Experience.*

As for the First, namely, Native Stupidity; I never heard that Dulness was the peculiar Prerogative, or rather the Curse of any Country except Bæotia: Thus among the Romans, in Bæotia natus, was a common Phrase for a Block-head. But I can see no Reason why a London Surgeon should boast of a finer Genius or more exalted Understanding than his Brother who practises in the Country. Certainly no Man of Learning can entertain such false Notions, if he should, let him reflect on the Reasons assigned for the Quickness of Homer's Parts, the Penetration of his Judgment, and the amazing Extent of his mental Powers, which arose from the Purity and Serenity of the Air which he breathed.

Pindar, Sophocles and Sappho enjoyed the same Advantage, and all of them shined and excelled in their respective Ways.

*Ways**. Surely if Purity of Air contributes so much to the Clearness of Judgment, let the London Surgeon tell me whether he or the Country Man stands the fairest Chance for an unclouded Head, and a Talent for judging rightly of things; is it possible for an Atmosphere richly impregnated with the Smoak of Coals, great Exhalations from sordid Kennels, and a prodigious Quantity of Dunghills to be compared with a salubrious Country Air, free from noxious Vapours, fit for maintaining the animal System sound, and consequently preserving the Powers of Reason in proper Order? Besides the London Surgeon has so many Avocations and Temptations either to Vice or Idleness, that he can hardly be supposed to think with that Calmness, and act with that Deliberation which the Country Surgeon is remarkable for; nay the various Amusements of the Town, the Play, the Opera, I am afraid too often get the better of his Judgment, engross his

Vide Hippocrates de Aere, Aquis et Locis.

Thoughts by dwelling continually on his Fancy, and so enervate and unbinge his Mind, that he forgets almost every laudable Pursuit which may either raise himself to Glory, or prove beneficial to his fellow Creatures. How wide then is this Life different from the peaceful State of the latter, who has no such Amusements to draw his Thoughts off from the State of his Patients and their various Disorders? As for my own Part I care not whether you call me a Country, Army, Ship or Foreign Surgeon, provided you don't rank me among the unskilful and unexperienced..

As for the second, I mean the Defect of acquired Parts, I think the Country Surgeon is no more to be charged with this than the Town Spark; for both alike may be supplied with choice Books, and he who carefully reads the few well chosen will generally make the greatest Proficiency in the Art: It is indeed true that in Town magnificent Libraries for Ostentation's Sake are more frequently
to

to be met with, and often consist of Books wrote in Languages of which their Proprietors are entirely ignorant. But no Man can acquire Learning by sitting near a fine Library and admiring himself, nor will he be a jot wiser or more learned, since Learning and a due Proficiency in our Art is the Effect of Diligence and Industry.

Spectatum admissi risum teneatis amici.
Horat. de Art. Poet.

As for the third, namely, Want of sufficient Experience; it will be far from transgressing the Laws of Truth, or imposing on Mankind, when I assert that, abstracting from those of the Hospitals, a Country Surgeon has a far better Opportunity of operating, and in a greater Variety of Cases, than can fall to the Lot of those in London, and consequently the same happy Occasion of improving himself by Experience and Observation; so that if the former falls short of the latter, it must be entirely
his

his own Fault, and not at all owing to his residing in the Country. Nay I am persuaded that compound Fractures in general are more properly managed, and more Limbs preserved by Country Surgeons, than ever were saved in London.

Ever since I commenced Practice I have lamented the gloomy and deplorable State of this noble Art, and lately with Pity I beheld beardless and unexperienced Youths with much Comeliness peached on the Doors of public Stalls expecting Preferment, when Men of Skill and long Experience have been often denied; but it is no great Wonder, since the best of things have been prostituted to the worst of Purposes, and Surgery, the noblest of all other Arts, is sunk and overwhelmed in Chimera, Cant and Ostentation. It is true, when first I bemoaned the luckless Fate of the Science, and at the same Time despaired of seeing her regain her primitive Splendor, I resolved to investigate her State in a Foreign Clime;
 Accord-

Accordingly I embarked for the West-Indies, where I found the Principles of a rational Surgery more carefully followed, and where Surgeons, instead of bewildering themselves with vain Speculations, were employed almost Night and Day in dressing, and attending those committed to their Charge.

Tho' the Intemperature of the Climate, the Customs of the Place, and almost a thousand other Circumstances at first bore a forbidding Aspect, and even struck me with a Kind of Horror; yet what will not a Man intent after Knowledge suffer in order to improve himself? I considered this as the grand Scene of Action, Experience and Observation, and therefore resolved to make the best Advantage of my Stay. The intense Heat, the Method of Living, the Intemperance in Drinking, and the many Accidents which daily happened, procured me sufficient Employment; and as it pleased God to bless me with great Success even in the most desperate and
unheard

unheard of Cases, I soon had more Business than I could well attend, and consequently a large and spacious Field to glean Skill and Experience in; Besides as some of my Patients were of such a Class, as that I was obliged to try Experiments for their speedy Recovery, because they often laboured under Diseases peculiar to their own Climate, and were frequently subject to the most terrible Accidents. By this Means I found out some hitherto unknown Methods of Practice, which never once misgave with me, and on the Safety and Efficacy of which I can always depend—Tho' I might on this Occasion apply to myself what Virgil says of Æneas,

—Multum Ego et terris jactatus & alto
Vi Superum———

Æneid. Lib. I.

Yet this Country was to me a real Elyzium, a Field in which I reaped richer Fruit than any that ever was gathered in the celebrated Gardens of the Hesperides.

rides. However after spending a Series of Years in it, I began to reflect on my Family in England, and saw both the Duty and Necessity of my returning; accordingly I took my Leave, by giving some public Lectures in Anatomy and Surgery, with my Observations on the endemial Diseases of the Place before the Physicians, Surgeons and others of the Island; I embarked for my native Country, and feasted my Mind with the fond Hopes that Surgery by this Time had again appeared in her native Glory. But alas! how miserably were my Expectations baulked, she rather was become more odious and deformed than before my Departure; for she had, amongst other Absurdities, retaken from the French, a Practice which they had stolen from us, and which we had long ago condemned as dangerous and unwarrantable; I mean the Bougie. This Sterility of Genius in my own Countrymen, and their bigotted Attachment to foreign Modes of treating Disorders, induced

induced me to the Publication of the following Observations, the Methods of Practice recommended in which are all safe, and a great many of them entirely new, such as the Poplitean Issue for the Palliation of the Gout, &c. What further prevailed upon me to publish them, was the Consideration, that the Stock of practical Observations wrote by Englishmen is so small as hardly to deserve naming; whereas our neighbouring Nations have treasured up abundant Stores of this Kind, and by that Means improved their Surgeons, and advanced the Art considerably: For it is morally certain, that Observations carefully made, and faithfully recorded, are infinitely better calculated in the very Nature of Things, to form the Judgment, and direct the Understanding, than ten thousand speculative Volumes, wrote by the most acute and piercing Geniuses. But to conclude.

As it may possibly be expected I should silence the snarling of surly Critics and
captious

captious Wranglers, as also sooth the incredulous who will not believe what they do not see, and as I have been this last Time almost seven Years abroad, and consequently may be supposed to be in a great Measure forgot, I have for their Satisfaction subjoined the two following Certificates of my Skill and Success, both at Home and in the West Indies, which I am certain the candid and judicious will not think a piece of Ostentation.

Borough of Reading in the County of Berks.

We whose Names are hereunto subscribed do certify, that Mr. *Dale Ingram* practised Surgery in *Reading* in the County of *Berks* upwards of nine Years with great Skill, Humanity and Success. Dated at *Reading* aforesaid the 6th Day of June, 1750.

Thomas Flory Mayor.

Aldermen,

John Merrick M. D.
John Thorp Surgeon.
Richard Tilliard
William Everett
John Abery
John Hocker
Abraham Watlington

John Drudge
John Spicer
Harry Austin Dean

William Blandy
Francis Whitchurch
 Burgesses.

The

*The Other relating to my Success
Aroad, and granted by the most opulent
and eminent of the Gentlemen of Barba-
dos, runs thus,*

We whose Names are hereunto subscribed, do certify
that Mr. *Dale Ingram* practised as a Surgeon in the
Island of *Barbados* between six and seven Years,
that his general Character was that of an able and
experienced Surgeon, that his Departure was
looked upon as a publick Loss, and that he gave
Lectures in Anatomy and Surgery, as well as
risqued his Life in dissecting morbid Bodies.

*Hon. John Gibbons
William Kennedy Esq;
George John Petre
David Crichton
Daniel Moore Esq;
Francis Ford Esq;*

*Richard Smith Esq;
Nicholas Wilcox Esq;
John Wills Merchant
Robert Wadeson
William Walcot
Nathaniel Barry.*

C O N-



PRACTICAL CASES
A N D
OBSERVATIONS
I N
S U R G E R Y,

With Remarks highly proper, not only for
 the Improvement of all young Students, but
 also for the Direction of such as are farther
 advanced.

*Case of Lewis Bangier, Peruke-Maker,
 born in the Province of Poitou in
 France, aged fifty-three years.*

A P R I L the 18th, 1745. he in-
 formed me, that he had lived in
Barbados about twenty years, and
 that about six years since, he felt a pain
 in his left Testicle, accompanied with a hard-
 ness; the *Scrotum* daily encreased, to the size
 here represented. Some time after, he fell
 into an *Ascites*, for which he was tapt three
 B times;

times ; his left Leg also growing œdematous it was scarified, and at each Operation a large quantity of water was discharged.

On examining the Case some few days before he died, neither of the *Testicles* could be discovered. The *weight* of the Tumour he most complained of ; its Surface measured fifteen Inches, and it was near three Feet in Circumference. There was not the least appearance of a *Penis*, of which having no command, his Urine was promiscuously sprinkled on his Thighs every time he had occasion to discharge it. The spermatic Vessels were distended, and the body of the Tumour had various Aspects ; one part very hard and thick, another soft and œdematous, whilst the outward Integuments were very rough, being covered with Warts or Excrescencies of the size of small pin-heads.

FIG. I.

a, Represents the *Glans Penis* when the Tumour was prest to find it.

d That



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b, That part of the Tumour that was studded with small hard round Bodies of the size of small Grapes, which probably were originally aqueous Tumours, but now seemed scirrhus.

c, The Raphé over-stretcht, contorted and knotted.

d, The *Præputium* over-distended like to a CrySTALLINE.

e, The left side of the Tumour, which by pressing appeared like dough.

fff, The left Thigh, Leg and Foot œdematous and enlarged.

F I G. II.

g g, The *Nates* quite flat, and their Muscles wasted, so that scarce any thing was left but the common Integuments to cover the Bones.

b b, Part of the Tumour forced backward, as it appeared when he stood erect.

i, The *Anus*.

This Tumour had not the least transparency, which is something remarkable, and more so as he had been tapt for a Dropsy three times; for an Ascites, I conceive,

ceive, is too frequently the primary Cause of Hydroceles and anasaruous Tumours, either by *Infiltration* or *Effusion*; indeed sometimes the great weight of enlarged *Testicles*, by pressing and over distending the Blood-Vessels of the *Scrotum*, and as it were, with a Ligature stopping the returning Blood, a cutaneous Hydrocele may be brought on; and it is from such like Strictures we account for the cold œdematous Swellings in the Legs of pregnant Women.

This great distention of the *Scrotum*, at first made me suspect that the Case was attended with an *Entero-Epiplocele*; but finding the abdominal Ring free, his Belly full, without pain, and always regular in his Stools, I was relieved from such like Imaginations.

The Enlargement of the Spermatic Cords might proceed from water dripping into its cellular Coats, since water is often found in the cellular posterior covering of the *Peritonæum*, and more especially if the Circulation is impeded in its return. That the cellular Membranes of the Spermatic Cords will form Hydatides in the same
man-

manner as the Cawl and *Membrana adiposa*, I have good reason to be convinced of, since two Cases of this kind have fallen under my Inspection, in both which I performed the Operation and succeeded. I take it for granted that this Disorder arose from a Sarcocele or scirrhus *Testes*, since diseased Testicles have their increase, and are subject to induce several species of Hydroceles or encysted Dropsies, these being symptomatic, and the consequence of the former Disease.-- The following Case with Remarks, will, I hope, support my opinion, and illustrate the nature of Hydroceles more explicitly.

C A S E II.

Wm. C---day, Esq; of the Island of *Barbados*, had for several years laboured under a large Tumour of the *Scrotum*, and in *April* 1748, being at one of our Leeward Towns called *Speights* or *Old Bristol*, about Business; he in getting into a Wherry to come up to *Bridge-Town*, accidentally fell

upon the side of the boat and bruised the distempered parts, which caused great pain; immediately the Tumour encreased, and the next morning I was sent for by his Physician.

On examining the Case, I found the Swelling as large as a Child's Head, very soft, discoloured in several places, and tending to a Gangrene; the cutaneous Vessels seemed varicose.

After fomenting the parts with a strong discutient Stupe, I made a longitudinal opening with a Lancet, which let out near half a pint of water, tinged with Blood; the over-streht Veins bled for some little time like great Ramifications: Having scarified the discoloured parts, they were drest up with Pledgets armed with *Liniment. Arcae*, expressed from *Ol. Tereb.* and covered over with the Oatmeal and Strong-beer Poultis.

This Disorder in a few hours encreasing to such an enormous size, I concluded it must arise from the blow against the boat, breaking the *Cystus Hernialis*, by which means the water was diffused around, and probably some from the *Abdomen* might drill down.

The

The next day, on taking off the Dressings, the Tumour appeared as large as before, and threatned a Mortification; after fomenting a considerable time, which seemed to give some relief to the excruciating pains he complained of, I enlarged my former Incision near an Inch, which let out half a pint of bloody Water, and now I could plainly discover the cystic Bag; he was dress'd up as before, and the parts covered with the Poultis.

The morning following he complained of much pain, was very restless all night, his Pulse strong and attended with a Fever. Urine high, foetid and turbid, partly from the Fever, and partly from the * Turpentine Dressings. --- On removing the Pledgets the Scarifications appeared of a blackish blue, and the incision swoln, with Lips somewhat inflamed. --- The Tumour was not quite so large. Continuing in this Method for four days longer, and scarifying as often as there was occasion, we prevented

* Turpentine externally applied, acts upon the urinary Passages, in a most wonderful Manner.

the approaching Gangrene, and could plainly perceive the emptied Sack or Bag; however the Tumour was much greater than could be expected after such discharges.

On strict Inquiry, as I had now more time and a proper opportunity, I found a Cystus on the left side, and having opened it, near a pint of water was discharged, which considerably abated the Swelling and Pain. The same Dressings were continued for about a week longer, at the end of which. the Disorder was very little lessened. On the left side I could distinguish the Testicle very plain, and it felt as in a natural state without any Adhesion, or Enlargement; on strictly examining the right side, I found a large body, which seemed as big as an Egg or larger, and which I concluded must be the Testicle enveloped in Water; on which I carefully thrust in my Lancet, and let out near a gill of a yellow watery Fluid, lying between the *Tunica Vaginalis* and the *Albuginea*.

The next day I discovered the Testicle very distinctly; but there seemed to be something

thing more, for the spermatic Cords were enlarged to near six times their natural bulk. And this augmentation of size seemed to proceed from water, which was let out by the point of a Lancet. We went on very well for about ten days longer, when the Tumour was greatly reduced, the Bag recovered its corrugating faculty, the Wounds had a good aspect, the Fever vanished, the Patient grew chearful and fat up every day for some hours, and the spermatic Coats grew less.

Upwards of three weeks being spent, it was time to expect the Wounds inclinable to heal; but instead of our Dressings appearing with a matter white, smooth and of an uniform consistence, we had only a glairy Fluid, and the *Scrotum* continued much bigger than it ought; the lips also looked pale, and without any Granulations, which I concluded must proceed from the thick Cystus remaining, and judg'd that a Cure could not be perfected without they were removed; or if the Wounds should heal in time, the Patient would be subject to the several species of Hydroceles years after.

There-

Therefore it was requisite to think of some more certain method; at first I had thoughts of laying open the whole *Scrotum* on both sides, and dissecting the thickned cystic Bag; but this I found could not be performed without giving great torment to the Patient, hazarding the loss of the *Testes*, and spermatic Vessels, in removing the hernial Bag with them. --- And as the Testicles ought to be preserved, they being not decayed, I concluded upon putting in a *Flamula* thro' the *Scrotum*, from the bottom upwards. --- This being done, I armed it every day with the *Erug. Eris* levigated to an impalpable Powder, and continued the discutient Fomentation, purging him between whiles. --- In this method I went on about a week longer, but did not succeed, having only a nasty dirty watery discharge, and therefore concluded to put in a fresh *Flamula*, and arm it every second or third day with *Præcipitat. rub. lev.* desiring the Physician to keep his body open, lest the Mercury should bring on a Ptyalism; the skain of thread was moved every day, and in one or two, a thick Discharge was

was brought about; but in about five days a slight Inflammation ensued, and the Mercury, thro' omission of his purges, laid hold of the salivary Glands, which gave us much trouble: The Inflammation abated by emollient Fomentations, and lenient Cathartics, tho' the Cure was retarded because the spitting kept back the frequent application of the *Precipitate*. However the parts daily grew less, and in nine weeks a perfect Cure was finished; since which he is very well, and at this time in *England*. — I shall conclude this Case with some general Remarks on *Hydroceles*. And first, that encysted *Hydroceles*, either in the *Hernial Sac*, *Tunica Spermatica*, or in the cellular internal Coat of the *Scrotum*, are very frequent, notwithstanding Mr. *Sharp* has declared them imaginary. — Among the several Arguments he advances against such Cases, the first is, “ that the *Peritonæum* (I suppose in a “ found state) will prevent the water in “ the *Abdomen* from falling into the *Scro- “ tum* ;” now suppose at present I grant this, then it follows, that in a *Hernia Intes- tinalis*

tinalis he must allow, that water may drip into the *Scrotum*, and in such a Case form a Hydrocele; for the bar is removed if you take his own words. (*viz.*) “ The *Peritonæum* “ in a *Hernia Intestinalis* falls down at the “ same time with the Bowel, which the Ant- “ cients did not know, and the Moderns have “ omitted.” — I am sure most of us have known it many years, or small must be our anatomical Skill; and I am sorry he should omit this Observation, that Water almost always attends such kind of Ruptures.

To support this Argument, that water cannot drip from the *Abdomen*, he takes upon him to inform us, that People with an *Afcites* have seldom a Hydrocele, and those with a Hydrocele, have seldom a Dropsy of the Belly; surely no compound Case is more frequent to be met with, than a dropfical Person afflicted with a Hydrocele also.---I remember an extraordinary Instance of this nature in *Barbados*, well known to almost every Gentleman of that Island; it was the Son of a very poor Widow Woman,

and I cured him on my first settling there. The Boy was maintained by Subscription of the Gentlemen, at a general Meeting, and examined publickly by the Physicians when he was well, for which I had their Thanks.

Again, if the Water could not possibly drill down from the Belly, how comes it about, that dropfical People have swelled Legs, nay anasaruous Appearances in both Legs and Thighs?

The manner this Gentleman accounts for the second species of Hydroceles, seems to be a profound Method of reasoning, viz. “ the “ *Tunica Vaginalis* is like a purse totally shut “ up on the outside of the *Abdomen*, so that “ no water from any part can insinuate into “ it, and therefore the Dropsy of the *Tunica* “ *Vaginalis* is owing to a preternatural discharge of that water, ordained for the moistening or lubricating the Testicle, which “ collecting too fast, forms in time a Swelling of great Magnitude.” If this preternatural Discharge was the only Cause of this Dropsy, I should think the *Pericardium* would be subject to the same, especially when

when your Patient is afflicted with a *Hydrops Pectoris*; but I never yet heard of a Dropfy in the Heart.

Whoever does but reflect, that the *Tunica Vaginalis* with its inclosed Vessels, borrow certain cellular Membranes from the outside of the *Peritoneum*, which descend to the superior part of the Testicles, will be convinced that all the Membranes, whether from the *Tunica adiposa*, or otherwise, are subject to Expansion, Distention and Laceration, from which Hydatides or Cystuses of Water may be formed; and in Distentions of such Membranes, Water will diffuse itself. May it not therefore be granted that Hydroceles are in general produced by Effusion, tho' scirrhus Testicles are attended with this Disorder by Distention primarily? We have a Case related, wherein a pint of Water has been at once let out of the spermatic Cord, which I think is a sufficient Argument for Effusion. --- It is related by Dr. *Monroe*, in the 5th Vol. of the *Medical Essays*, p. 9, Case 254.

I shall

I shall now explain what I mean by the several Species of Hydroceles, since this Author, in his Treatise on the Operations of Surgery, allows but two; which must arise from an Oversight only; since it cannot be suspected, that the error is owing to any want of Sagacity, in so experienced a Surgeon, doubtless ever cautious of Omissions of so great Importance, so necessary to be understood, as well as the Danger of leading young Students into Mistakes: I shall therefore take the freedom to observe to you six Species of Hydroceles, and explain them in the following Order, viz.

The first, is seated in the cellular Membrane of the *Scrotum*, which Anatomists call *Membrana Cellularis Scroti*, and this may be called *Hydrops Scroti*, or *Anasarca Scrotalis*.

Second, when the Water is contained in the *Tunica Vaginalis*, being the other Species of the same Author, formerly distinguished by *Hydrops Testis*.

Third, is formed in the cellular Substance of the spermatic Cord, easily to be discovered

covered when the Body is erect, at which Time you will feel the Testicle distinct, and by pressing the enlarged Cord, you will not only discover the Water to fluctuate, but also you may force the Fluid upwards, this I shall term, *Hydrops Cellularis SpermatICA*.

Fourth, is when the cellular Membrane of the Bag forms itself into several Hydatides, which it is as subject to as the *Omentum* or *Membrana universalis* in other parts.

Fifth, is found in a true *Hernia*, if of a long Duration; a Case of this Nature I met with at Henly upon Thames; where the Water so abundantly fluctuated, upon striking the part with the palm of my hand, that there was no reason to suspect the falling down of the Bowels or Cawl; on the Incision near a quart of Water issued forth, and carrying it on further, the *Omentum* and Bowel came out. --- The Patient, Mr. *Wilkinson*, recovered, and lived several years after the Operation.

Sixth, is seated in the Sac of the *Peritoneum*, after the Operation for the true *Hernia*; and indeed in all *Hernias*, tho' cured

cured by Trusses, the *Sacculus Hernialis* remaining, is subject to form an encysted Hydrocele; and more especially if the Person afterwards falls into a cold relaxed State, or a Dropsy of the Belly; because the internal Sides of the Cystus seldom or never close or unite exactly, unless by a violent Inflammation.---Mr. *Le Dran*, in his seventy-fifth Observation, has given a Case of this nature. He tells us, that a Person had an *incomplete Hernia*, which being neglected, became *complete*.---Mr. *Arnaud* reduced it, and by a suitable Bandage it was cured.---Some time afterwards a Tumour in the Part was formed as big as a small Melon; Mr. *Arnaud*, on examining the Case, found it to be water, which he tapt, and drew off near three half-pints; afterwards the Patient was admitted into *La Charite*; the Tumour being increased, Mr. *Le Dran* let out a quarter of a pint of Water of the Colour of Urine; in four days the Tumour filled again, which put Mr. *Le Dran* on the radical Method of Cure, by dividing the *Scrotum* longitudinally, when

he found three distinct Hydroceles. One was in the *Cystus Hernialis*, another between it and the *Musculus Cremaster*, in the *Cellula* of the *Tunica Vaginalis*, and the third was upon the *Tunica Albuginea*; for the particulars I refer you to his Observations translated by Mr. J---- S---m, Surgeon, --- Mr. *Le Dran* concludes this Case in the following words, *viz.* “ I examined the Tumour
 “ after the Operation, and still preserve it
 “ prepared, where the three Hydroceles are
 “ to be seen distinctly.”

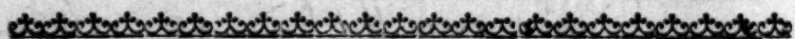
I shall now offer my opinion of the Treatment proper in Cases of encysted Hydroceles.

As it would be almost endless to enumerate the variety of internal and external Applications, both as palliative and radical, which have been invented for Cure, and the small Success these Methods have met with in proportion to the number of Cases; I shall propose a safe piece of Practice in very large complicated and encysted Hydroceles, as radical, which is either to make a longitudinal Incision on the external side of the Tumour the whole length, beginning upwards,

wards, because by this means there is less danger of injuring the Testicle; or to apply a Caustic near the bigness of the Cyst, which being laid open entirely, you have your work in sight. This being done, and the Water evacuated, the nature and thickness of the Bag will be discovered, and the Bag itself may be removed either by the Knife, or Dressings with *Precipitate*, taking care to procure an opening Stool daily with some lenient Cathartic. --- Another Method is to introduce a skain of Thread as a *Flamula* thro' the Coats of the *Scrotum*, which must be armed with *Precipitat. rubr. læv.* and drawn backward and forward every day; this last Method will answer the intention by destroying the Cystus, thereby bringing on a slight Inflammation, and the loose or separate Membranes will contract a preternatural Adhesion, and prevent a Relapse.

As I am treating of watery Tumours, I shall make a Proposal to cure the Ascites, without the Operation of the Paracentesis, that is, when the water must be evacuated by an external Operation. The Method I design is, to

introduce a skain of Thread transversely thro' the *Scrotum*, I mean thro' its *Venter*, and more especially if a Hydrocele attends the Dropsy. --- Why should not this Method answer the intent, as well as Blistering or Scarifications thro' the Skin in the small of the Legs for the *Anasarca Scrotalis*, which has often proved curative? The dependency is the same in proportion to their distance, and the parts above are cellular. --- Probably an Objection may be made on first sight, by saying it is dangerous piercing the *Septum Scroti*; but who ever will take the pains either to inflate or inject the *Scrotum*, will find there is no such Partition.



II. Of an *Empyema*.

IN the Month of *January*, 1746. a Negro Child about nine years of age was brought from *Esqueba* a Colony in *South America*, adjoining to *Oroonoko*, to be put under my Care, by the Direction of Capt. *Burkbam*.---On enquiry, I found the Child had been attacked with a severe Fever some
2 months

months before, and from that time had laboured under a difficulty of breathing, and now was wasted almost to a shadow, by a symptomatic night Fever, and Pain in the side; the whole Chest was elevated and seemed distorted, a violent Cough with an Expectoration of Matter subsisted, with a Tumour on the Side.---I bled the Child, and ordered a suppurative Poultis to be applied on the Swelling to accelerate its Maturation; in two days I perceived a fluctuation of Pus; I opened the Swelling with a large Lancet, and discharged near two cupfulls of ill scented Corruption. The Perforation was between the sixth and seventh Rib, much about that part where the Bones form the Arch; I introduced a Tent of Lint into the Wound, and applied a Plaister and Bandage to secure it; next day on removing the Dressings above two spoonfuls of Matter flowed immediately, and one of the Ribs appeared enlarged with a Caries: The Wound was kept open with a small leaden *Canula*, till such time as the discharge was inconsiderable, which was in

about two months, after lenient Purges and balsamic Pectorals had been administered; about this time the Rib exfoliated above half its length, and in a great measure retained its natural shape. The *Canula* was withdrawn, and only superficial Dressings were applied, and the Wound healed in a few days after; the Fever, Cough, spitting up of Matter and difficulty of Breathing, gradually decreased from the Operation, and soon after entirely disappeared.

OBSERVATIONS.

I find Mr. *Sharp* in his Operations of Surgery, Chap. XXIV. speaks of this Operation, as if it should be discarded as unnecessary, when Blood or Matter is fluctuating in the *Thorax*, and confines the necessity of it only in Cases of water.

The reasons he gives against the Operation, where Blood is the extravasated Fluid, may be comprehended under the four following Heads, *viz.*

“ 1. As it must proceed from some Wound
“ of the Vessels of the Lungs or *Thorax*, by

“ a Perforation or the like: The Operation
 “ (whilst the Hæmorrhage continues) will
 “ endanger a profuse Effusion of Blood,
 “ whereas otherwise, the Wound might be
 “ choaked up and stopt.” --- I conceive he
 means by the grumous Blood.---

“ 2. When the Hæmorrhage is stopt, it
 “ is unnecessary; because the Blood spilt may
 “ find its passage thro’ the external Wound,
 “ if kept open, or be absorbed and spit up
 “ thro’ the *Trachea*.

“ 3. If it should be thought that the Blood
 “ is coagulated in the *Thorax*, and cannot be
 “ taken up by the Vessels of the Lungs, in
 “ such a Case, the Operation will not answer
 “ the purpose, because frequently the Lungs
 “ adhere to the *Pleura*, in the place of In-
 “ cision; the narrowness of the Orifice, depth
 “ and height above the Diaphragm on which
 “ the congealed Blood is supposed to lie, will
 “ absolutely prevent any advantage.

“ 4. If the intercostal Artery is wounded
 “ it may be stopt by external means, and the
 “ *Thorax* may be emptied in a rupture of any
 “ Vessel by bleeding, which will stop the Hæ-
 C 4 “ morrhage,

“ morrhage, by abating the *force of the*
 “ *Circulation*, unload the Vessels of their
 “ Contents, and make them more fit to re-
 “ ceive the Blood extravasated by Absorpti-
 “ on.” And a little lower in the same page
 he subjoins, “ I am the more particular
 “ in laying down this Doctrine, as it is
 “ not built on mere Theory, but has been
 “ surprisngly confirmed by Practice in a
 “ variety of Cases.”

In Answer to his first Objection : Doubt-
 less reiterated Venesections are absolute-
 ly necessary in such Wounds when re-
 cent, to stop the Flux of Blood ; but sup-
 pose this Method should not succeed, and the
 Patient is in imminent danger ; may we
 not in such a Case wrap up the *Thorax*
 with Napkins made wet in Oxycrate, or
 even in Vinegar, and may not something
 of the same nature be given inwardly in-
 stead of *Pectorals*? probably also a cool-
 ing Clyster might assist us a little ; but if
 in this method we should not succeed, would
 it be unjustifiable to search for the blood
 Vessel, that it may be either taken up,
 cau-

cauteriz'd, or a button of Lint moisten'd in some Styptic applied to its Orifice?

I think it is said, Page 118, That Bleeding stops the Hæmorrhage by *abating the force of the Circulation*. Might we not account for the advantages of bleeding, in Hæmorrhages, in a manner somewhat different from what is here advanced; I argue thus: The *Momentum* being drawn off, the Velocity of the Circulation will be encreased, (*not abated*) because the distention of their arterial muscular Coats will be relieved; consequently, by their natural contractile Force, they will push the Blood forward with greater Energy than before; I have frequently imagined, that I could perceive the Pulse of the Person, some little time after bleeding, to beat more frequent in the space of a minute; if this frequency was only conjectural, my mistake probably arose from the strong force of Imagination, that the Circulation of the Blood was not wholly performed by the Heart, but assisted by the Contraction of the muscular Tubes, the former being insufficient to distribute

bute

bute the crimson Liquor into every part. ---
 From such like reasoning (or misconjecture)
 I apprehended Phlebotomy necessary in
 wounded blood Vessels, v. g. because the
 Spring of the Blood being exerted, a less
 quantity would be subject to drill out of
 the *Wound*, into the *Thorax*, in the same
 space of time, as it would flow past the
 Orifice of the wounded Vessel with greater
 rapidity, and by the removal of the too
 great Distention, the lips of the wounded
 Tube would contract, and possibly by coming
 into contact be rejoined.

As to the second objection ; I believe that
 in some Cases, part of the spilt Blood may
 be instantly absorbed *, some may be brought
 away by Expectoration or other Evacuati-
 ons, and probably the greatest part may
 find a passage thro' the Wound, and more
 especially if it is kept open for some time,
 and dilated with sponge Tents.

But if it should happen, that the extravasa-
 ted Blood should not find its passage, after se-
 veral days or weeks thro' the Wound ; what !
 must we tacitly submit, and leave it to

* By Bleeding.

Nature,

Nature, when the Patient is labouring under its Oppression, with Symptoms of a lingering Death? For which way can she rid herself of this burthen, since extravasated Blood coagulated can scarce be converted into matter, nor be reduced to such a state of Fluidity as that it can be brought up by Expectoration? for the more fluid parts will be evaporated, and the remainder continue in a parenchymatous state, tho' not organized; and in your third Objection, you say, "in such a Case the Operation will not answer the purpose, because the Lungs adhere to the *Pleura*, &c."

But, sooner than my Patient should continue under *this* calamity, I would propose enlarging the Wound, nay though there was an Adhesion, and the clotted Blood confined in a Cystus: I would also divide the *Pleura* the length of the Incision, for the ready discharge of it. — In so doing, I know not any danger, if it is performed as I shall presently direct. — Resolution, joined with the knowledge of the parts, might have saved the Lives of thousands,

sands, long since, as Experience has convinced me. As to that Objection drawn from “ the depth and height above “ the Diaphragm, on which the congealed Blood is supposed to lie.” — I am inclined to think, that in such a Case, a Surgeon of sound Judgment would choose the *very part* to be perforated, and not be confined like a Mill Horse, to follow the paths of Authors (Election) only ; for if he should go thus round about, he must never expect to succeed ; whereas if he will open the very part grieved (called the place of Necessity) doubtless he will be happy in giving relief : For example, suppose the Fluid was contained in a Cystus, and was seated very high in the *Thorax* ; the Operation here must be on the Cystus, and not in the *most depending part of the Thorax*, as most Authors have directed.

Again you say, “ when Matter is lodged, or “ lies loose in the Cavity of the Breast, the Operation in such a Case is highly improper ; “ because an oppressed Diaphragm is very precarious, and it is notorious, that consumptive

“ tive

“tive People die of the discharge they spit
 “up, and on Dissection, not any Matter has
 “been found in the *Thorax*.”

I have long conceived, that these Abscesses (at least some kind of them) arise from an Inflammation of the external Membrane of the Lungs or of the *Pleura*, and as the Matter encreaseth, their cellular Membranes are first expanded, and then over-stretched, till a Rupture of their Texture ensues; and this is the Species of *Empyema*, that requires our notice: In such a state I also believe, that the Operation was necessary to discharge, as soon as possible, the purulent Matter, lest such *Pus* should bring on a Suppuration of the Lungs, for *Pus generat Corruptionem*; and when this falls out, the Corruption will be brought up thro' the *Trachea*. Of this we have many Instances, in which the *Empyici* have lain years under an Evacuation of this Matter by Expectoration, which ends in Death; and very reasonable it is to think, that the Life will so terminate, when we consider that such spitting up, can only disburthen a part of that
 gene-

generated, and that the Matter will continue oozing from all the other ulcerated parts daily. The Hætic survives, till there is no more Matter, Corruption or Lungs, to be brought up.

To corroborate this Doctrine, and consequently confirm my Practice, *Hippocrates* in Sect. v. Aph. 15. observes, that "Whoever become empyetic from a Pleurisy, if cleansed in forty days from the time of the Rupture, recover; otherwise they fall into a Consumption." *Galen* also asserts, that "unless the Pus be all discharged by Expectoration in forty days, it putrifies and corrodes the Lungs, and induces a Consumption." Besides we may reasonably suppose, that a delay of the Operation must necessarily produce a Danger which may cost the Patient his Life. It may happen by the smallest chance, (such as a sudden or violent motion, &c.) that the Membranes burst, and the Matter finding its passage hastily thro' the *Aspera Arteria*, endangers a Suffocation. But if no such Evacuation should happen, then the afflicted must sink in a tabid state.

That

That the Operation is necessary for fluctuating Matter, Nature herself informs us. For how many instances have we of Abscesses in the Lungs, breaking by force of Nature externally? and Mr. *Sharp* in the same Chapter confesses, that such Cases are not uncommon, after an Inflammation and Adhesion; almost every Author has Cases of the same nature, and Instances of Lives being saved thereby; even from the Time of *Hippocrates*, down to the present; every one recommending the Operation whenever any Fluid is extravasated in the *Thorax*.

The late eminent Dr. *Boerhaave*, in Aphorism 1191, orders the Operation, when *Pus* is lodged in the cavity of the Breast, and can neither be brought away by Expectoration, nor discharged by the urinary Passages.

Le Dran is very explicit, as to *Empyemas* of Blood, *Pus*, &c. when he says, that “ the only Method of removing them is
“ by the surgical Operation, which takes
“ its name from the Disease.”

To strengthen the Necessity and prove the Advantage of the Operation, I shall recite one Case, being pertinent to my intent, and taken from the elaborate medicinal Dictionary lately compiled by the celebrated Doctor *James*, viz. “ *Robert Kid-*
 “ *well*, a Gardiner at *Lambeth Marsh*, near
 “ the *New-Bridge*, had a large discharge of
 “ Matter in the cavity of the Chest;
 “ (The Criterion of an Inflammation
 “ of the *Pleura*) insomuch that it was
 “ judged impossible for him to survive many
 “ hours ; — he was so weak as not to be
 “ able to hold up his hands.—Mr. *Westbrook*
 “ made a Perforation into the *Thorax*, and
 “ let out a large quantity of foetid Mat-
 “ ter, which burst out with such violence,
 “ that it flew all over the By-standers. The
 “ Wound discharged afterwards a pint of
 “ the same every day for eight days, and in
 “ about eight weeks the Cure was perfect-
 “ ed according to Art: In a little time after
 “ he beat two men, with whom he had a
 “ quarrel ; This in my opinion is a suffi-
 “ cient proof of the recovery of his strength;
 “ and

" and to the Honour of our Profession, the
 " Patient was saved from drowning in a
 " flood of stinking Corruption."

The several difficulties started by this
 * Author, with which we are to encounter,
 in performing the Operation, may be con-
 sidered under the following heads, viz.

1. The difficulty of counting the Ribs
 in fat People.

2. The trouble and depth of the Wound
 necessary.

3. The almost impossibility of the in-
 tercostal Artery escaping without being
 wounded.

*It is hardly possible to escape wounding the in-
 tercostal Artery which runs in this place be-
 tween the Ribs; or if you avoid it by
 cutting close to one of the Ribs, a Caries
 of the Bone will follow from the pressure
 of the Tent employed afterwards. And
 after all these Assertions concludes in the
 subsequent Terms, doubtless by way of
 Aphorism, viz. Upon the whole, without any
 further recital of Objections to the Empyema*

* Sharp.

D

thus

thus performed, it cannot appear an adviseable Operation.

I think if the Operation is not adviseable as thus described, we might have expected long since to have known the Method of operating safely, that these Objections might be removed, and possibly others, as well as myself, have been misled, by reading his Treatise on the Operations of Surgery.

Tho' I have a profound Veneration for Mr. *Sharp*, on account of his polite Learning and other good Qualities; yet I hope both he, and the Public, will pardon me for advancing my real Sentiments, especially when they find them to be supported by good Reasons.

And 1st, *In fat Persons, it is not easy to count the Ribs, — pag. 123.* Certainly he who is Master of Osteology, can form a Judgment of the Course of the Ribs, from a view of the *Sternum*, since they are to be counted forward, even in fat Subjects; but pray how many Empyics have Practitioners seen over-burthened with Fat to
such

such a degree, that a Rib could not be felt? But suppose now, for Argument's sake only, I should inform you and my Brethren, with the utmost Submission, that the point in question is not of so great moment to our Design, since we need not be confined to any one part, but strictly are bound in justice to operate on the place first complained of, it being the nearest, and the Seat of the Distemper, as well as the Lodging of the Enemy, whether *Corruption, Blood,* or extravasated Fluid.

How extravagant would it appear for a General to send his Troops to the South, to subdue the Enemy in the North, and more especially, if he made the *Operation his Election*? It would be equally absurd in our Art, for a worthy, learned and experienced Surgeon, to operate on the most depending part, when the Enemy is lodged either in the Duplicature of the *Mediastinum*, between the Lungs and *Pleura*, or in the Lungs themselves, nay between the Ribs and *Pleura* in its cellular parts, or in the Diaphragm from an Inflammation, produc-

ing an Abscess which discharges its Contents into the Chest. And lastly, if the Matter is seated in one side only, or in both, and if its Seat should be furrounded with a Cystus, in such Circumstances we should disgrace the noble Science, if we did not operate on the place of *Necessity*, or that primarily affected.

As to his second Objection, which runs thus, in his own words ; “ The Manner of
 “ operating is to pitch upon the most depending part of the *Thorax*, which some
 “ have supposed to be between the eighth
 “ and ninth Rib, and others, between the
 “ ninth and tenth, at such a distance from
 “ the *Vertebrae*, that the depth of the Flesh
 “ might not be an Impediment to the
 “ Perforation; this distance is determined
 “ to be about a hand’s breadth, and here
 “ with a Knife, Scissars or Trocar, we are
 “ ordered to make the Perforation, but in
 “ doing it, there are a great many Difficulties.”

But now, suppose instead of pitching upon the most depending part, we say the
 part

part to be pitcht on must be the place where the Pain was first felt, and the most depending part will be there, by placing the Body in a proper Position.

As for the Depth of the Flesh, and the Distance from the *Vertebræ*, they are two Circumstances apt to terrify young Surgeons; but any Objection of this kind is no more easily than safely removed, by placing the Body of the Patient in a proper Attitude, for the Discharge of the noxious Matter.

Again, “ The manner of operating, as
“ some have supposed, is between the eighth
“ and ninth Rib, and others between the
“ ninth and tenth.”

By this Description we are left in the Dark, bewildered, and when we come to operate, are reduced to a fatal Necessity of numbering the Ribs from above downwards, or from below upwards.

Quis talia fando temperet a Lachrymis.

However, I think we ought to count from the lowest Rib upwards, since *Prosper Alpinus*, *Bontius*, *Boerhaave* and many others,

have ordered the Operation between the fourth and fifth, or fifth and sixth Ribs, beginning from the undermost. As to the form of the Incision, the manner of perforating, the Division of the Skin, *Membrana Universalis*, and Muscles, are these not to be dissected? for by his Silence we are kept in Ignorance, and also have no Direction how to guard against wounding the intercostal Artery. Suppose therefore, I should propose the Operation in the following Method, *viz.* I have already said the part to be opened is that of *Necessity*, we are therefore, in such Cases, to make a transverse Aperture with the Knife (or Cautic) an Inch or more in length, first thro' the Skin, then the *Membrana Adiposa*, and afterwards thro' the Muscle; by this time the Ribs may be distinctly felt, even tho' the Patient should be very gross. Then place the Thumb and Finger, which hold the Knife, on the undermost Rib of those two you are to cut thro', and the Center of the intercostal Muscle may then be divided, by resting the Thumb on one Rib,

Rib, whilst the fore Finger is supported on the other *.

By operating in this manner, the Artery will not be wounded, neither will the Bones be in danger of growing carious, since by this Method they are not laid bare, neither will they risque such a Disorder from a long Continuance of Tents; for the Perforation will be large enough to discharge the Matter, without a long use of them. If the Fluid should be contained in a Cystus, the Incision must be continued thro' the *Pleura*, observing to make it the length of the Wound, in order to facilitate the discharge of the Matter, and thereby prevent a fresh Inflammation.

If the Operation is to be performed on the right Side, 'tis worth our Notice to observe, that the Aperture must not be lower than the fourth or fifth Rib, (*counting now from below, upward*) lest the Diaphragm should be wounded, and more e-

* Vide *Le Dran's Operations*.

pecially as the Liver adheres to it in this place.

From what has been advanced, I do not distinctly see *the Unfitness nor the Impropriety of the Operation*, when any Fluid is extravasated or collected in the *Thorax*. So far, therefore, is this manual Operation from being the most dangerous, that I am inclined to think it may be performed with as much safety as any other, where nervous parts are concerned.

Histories of Abscesses in the Chest after Pleurifies, &c. bursting by force of Nature only, are numerous, and frequently to be met with, and many now survive by her friendly Operations. Whereas when the purulent Matter is confined, and cannot force its Passage, nor is helpt by our Art, a Pulmonary Consumption must finish the tragic Scene.---I think the Case of *Robert Kidwell* is a sufficient Proof of this, *for in his Case the Matter burst out thro' the Incision with such Violence, that it flew all over the By-standers.* This violent Ejection was performed by the hasty Expansion of the

the Lungs, which propel'd the noxious Fluid with great Energy, and thus they continued their kind Office for eight days longer, that is, till such time as the whole Load of peccant Matter was disburthened.

I shall conclude, by proving the reasonableness of this Operation in Pulmonary and Hectic Consumptions, or Abscesses in the Lungs, where there is a long and continual Expectoration of *Pus*; for in Consequence of the Cavity being opened, the Lungs will expand themselves to propel the Fluid, which was before brought upwards thro' the Orifice, and prevent their Exulcerations from oozing continually, and forming new Matter; for like all other Abscesses when laid open, or way is made for the Evacuation of the Corruption, they will come into firm contact, and be consolidated. However I think the Experiment may safely be ventured on, when all other attempts have failed of evacuating the Matter by Internals, since the Anguish arising from it will be but a little more painful than that of an Issue. Probably an Inflammation
some

some little time after the Operation will follow, which may also prove advantageous by exciting the Lungs to a more brisk and frequent Action; since such increased Motion may burst any Cystus, formed either in the Lungs, or their external Membranes, all or any of which may prove salutary. Wounds in the *Thorax*, of themselves, are not always mortal, since I remember a Case, where a Person received a Stab into the Chest, where the Air came thro' it upon every Action of the Lungs, so violently, that it extinguished the Flame of a large Candle. The Person was a Hackney-Coachman belonging to *Bristol*, and received the Wound on a Quarrel near *Reading*, at a Place called *Harebatch*. He was attended by Mr. *Charles Smythers* and myself, till he was cured. The Case is as follows.

In 1741, some time in the Month of *June*, a Hackney-Coachman driving between *London* and *Bristol*, had the Misfortune, at *Harebatch* about 7 miles from *Reading*, to fall into a Quarrel with some Offi-

cers of the Army; and after having beat and bruised two of them, a third, exasperated at the ill usage he saw his Companions meet with, stepped up and barbarously made a thrust at the Coachman with a Hanger, which penetrated the Cavity of the *Thorax* in such a manner, that the Air discharged from the external Orifice of the Wound extinguished several Candles, when held near to it. Mr. *Smythers* and I being called from *Reading* to the Patient's Assistance, we, upon a careful Inspection and Examination of the Wound, found its Direction oblique, and its Orifice small. Every Symptom pronounced him in imminent Danger, if not absolutely past all Hopes of Recovery; for he was afflicted with the most excruciating Pains, and laboured under an incredible Difficulty of breathing, attended with an almost uninterrupted Syncope, from which last Symptom we concluded, that the Diaphragm must necessarily be hurt.

The first step we took was to dilate the Wound, in order to make its Orifice more depend-

depending ; after which we dressed according to Art, and blooded the Patient copiously. We also ordered him to be kept very low, and his Intestines to be frequently emptied by Clysters of Broth. He had emollient Substances, such as *Sperma Ceti*, Oil of sweet Almonds, and others of a like Nature often exhibited with the pectoral Decoction. He was kept very low, and prohibited the use of meat of every kind. What he drank was of a soft, balsamic and mucilaginous Quality. The Venesections were continued, as the Symptoms required, and were very frequent during the first two or three Days. However, dangerous as the Wound at first seemed to be, by persisting carefully in the above Method, a perfect Cure was obtained in a month, and the Patient still enjoys good Health and a vigorous Constitution.

To strengthen what has been above advanced, we shall give the following Case, from the learned and judicious *Bontius*, in his select Observations. *Observat. V.*

“ * A certain Soldier having drank to ex-
 “ cefs of Arrac, and being brought to
 “ the Caſtle almoſt totally without Senſe
 “ or Motion, we thought he could not
 “ ſurvive that night; however, he having
 “ partly vomited up, and partly ſleaped out
 “ his Surfeit, was next day ſeized with a
 “ violent Pleuriſy in his right ſide; tho’
 “ the Pain was ſomewhat abated by co-
 “ pious Venefections, yet the Inflammation
 “ terminated in an Ulcer, and this Ulcer

“ * Miles quidam, cum potu Arrac apprime ſe ingurgi-
 “ taſſet, & ferme ſine ſenſu, ac motu in arcem ferretur,
 “ credebamus ipſum iſta nocte ſupervivere non poſſe: ille
 “ tamen, partim evomita partim edormita crapula, poſtri-
 “ die in dextro latere Pleuritide exquisita correptus eſt;
 “ cui, licet poſt ſanguinis miſſionem, dolor aliquantum
 “ ſedatus eſſet: tamen inflammatio in ulcus, & inde, eo
 “ rupto, in Empyema deſiit, materia, in dextro latere, ſu-
 “ per Diaphragma affuſa. Erat adhuc viribus fatis con-
 “ ſtantibus, neque Febris, jam tam vehemens vige-
 “ bat. Itaque inter quartam ac quintam coſtam cauterium po-
 “ tentiale, quod vocant applicavimus, dein ſcalpello ef-
 “ caram porro aperuimus. Indeque effluxit ſanies copio-
 “ ſa, cum ramentis, ac particulis aliquot membranæ ſuc-
 “ cingentis coſtas, jam putrefactæ. Et ille, adhibitis op-
 “ portunis ſyringationibus, convaluit præter ſpem, & cum
 “ hæc ſcribimus, Malaccam verſus navigavit.”

“ break-

“ breaking an Empyema was formed;
 “ the Matter in the right side being dis-
 “ charged upon the Diaphragm, he had as
 “ yet a tolerable degree of Strength, nor
 “ was his Fever very violent; in consequence
 “ of these Circumstances, we applied the
 “ potential Cautery between the fourth
 “ and fifth Rib, after which we opened
 “ the Eschar with a Knife, and from thence
 “ was discharged a large Quantity of Sa-
 “ nies, mixt with threads and some par-
 “ ticles of the Membrane, which lines the
 “ Ribs already putrefied. The Patient af-
 “ ter being properly syringed, recovered
 “ beyond all Expectation, and at the time
 “ I was writing this, he failed for *Mal-*
 “ *lacca.*”

III. *Of a Pistol shot, through the Thorax.*

In the Year 1744, a Privateer Sloop be-
 longing to *Julius Robinson*, Esq; Merchant
 in *Barbados*, returned from her Cruize to
Car-

Carlisle-Bay ; when the Fire Arms being ordered to be unloaded and cleaned, it happened, that one of the Pistols, after several attempts, would not fire; the Gunner gave it to a Mate, who carelessly snapping it, it went off and shot him. The Ball entered his Breast, between the sixth and seventh Ribs, about the Midway between the *Sternum* and *Vertebrae*, and came out close to the inferior part of the *Scapula*, near the Spine.

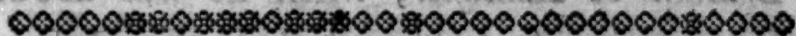
The Man being brought ashore to the House of Mr. *Hills* the Pilot, I was called in to examine the Case by the late Dr. *Gibson*; he was very low, pale, almost dead, and scarce able to speak; the Blood ran out of the Wound when laid on his Face, and also when on his Back; I ordered twelve Ounces of Blood to be taken from his Arm, and a Clyster of Sea Water was thrown up the *Rectum*, which gave him some Stools. In the interim, the superior part of his Body was rolled up with linen Cloths dipt in Oxycrate, and for Coolness he was laid on the Floor with one Blanket under

under him : In about two hours after, six Ounces of Blood were taken away, and the stained Cloths were removed, whilst others were applied very wet, with the same Liquor.---Two hours after, he was a third time blooded, and the Cloths were renew'd by clean ones, wetted as before ; in about four hours more, five ounces of Blood were again taken away, and fresh Cloths dipt in Oxycrate applied. --- He now complained of being chilly, the Cloths were not discoloured, and therefore I took my leave of him for that night.

Next morning I removed the Cloths and examined the Wounds, which I drest superficially with *Liniment. Arcaei*. In four or five days the Lips of the Wounds began to be inflamed, and afterwards to supurate, having discharged a bloody Sanies for some days before ; they then digested and healed without any trouble, in about three weeks. He appeared a walking Ghost for some time, but recovered his Strength in about nine weeks, and went again a privateering.

I had

I had once an Inclination to have dilated the Wounds with Tents for the discharge of any extraneous Body or extravasated Blood, but as the parts suppurated so kindly, I concluded there was no Occasion for it; and that the repeated Bleedings had empowered the Vessels to absorb the spilt Fluid, as *the Case was recent.*



IV. *Of Stones in the Bulb of the Urethra.*

The Beginning of *December* 1744, I was called in to visit Mr. *Henry Daldron*, a young Man about 19 years of Age, Clerk to *John Harrison*, Esq; of the Island of *Barbados*; he had laboured under a Suppression of Urine for several days without Relief, and was attended by Mr. *John Raven*, an eminent Apothecary and Surgeon, who had attempted ineffectually to draw off the Water. I found a Tumour near as big as a small Pullet's Egg, on the inferior part of the Root of the Penis, on the left side, which seemed to run down-

E

wards

wards near the bulbous part of the Urethra, or neck of the Bladder. The *Vesica Urinaria* was so greatly distended, that it was very visible and to be felt above the Basson of the Pubes ; I observed the *Vestigia* of a former Wound in that part, which is cut in the high Operation for the Stone, which he informed me was made by Dr. Bracken of Lancaster, when he was about four years of Age, and that the Doctor had extracted a very large Stone from him. On examining the Swelling, I could both hear and feel some hard Bodies. --- I gave my opinion that they were Stones, and that either the cavernous part of the Urethra, membranous Coats of the Neck of the Bladder, or the Bladder itself had suffered a violent Extension, by the long and continual Obstruction of Urine, and that therefore the only Method for Relief was opening the Tumour. Accordingly, a Lancet was thrust into it, from which flowed near three pints of Urine, of a very offensive Smell, and of different Colours, with some small Gravel: I then dilated the Wound,

Wound downwards, and introduced the Director which we use for cutting in the lateral Method, on which I guided a small pair of extracting Forceps into the Neck of the Bladder, and took away upwards of sixty fine smooth Stones, some of which were as large as common Nutmegs; I afterwards introduced the Scoop, which passed very easily (as I believe by its length into the Bladder) and drew out some very small Stones, about the size of Rape-Seed; these also were as smooth as *China Ware*, and polished to the highest Perfection, but of different Shapes, as may be seen, since I have at this time some of them by me. Sir *Thomas Robinson*, Bart. who was Governor of *Barbados* at this time, broke one of the largest, I suppose, to view its laminated Texture. This Case made some Noise in the Colony.

The Wound was dressed at first like those of the Phlegmonoid Kind; the proper Precautions were observed, and I took my leave at this time: The next day, Fomentations with the usual Dressings, after the

Operation for the Stone, were applied. It was near forty hours before any considerable Urine came thro' the Wound, which might be occasioned by a slight Inflammation, contracting or closing the internal Lips of the Neck of the Bladder, since doubtless they suffered somewhat by the Introduction of the Forceps and Director. Afterwards the Water continued its exit this way for near three weeks, which made it necessary to dress twice a day. Now and then a small Stone came away with the Dressings. We got over this Difficulty by good Compresses and Bandage *, and the Water began about this time to take its natural Channel. Something of this kind was necessary to prevent the danger of leaving a fistulous incurable Ulcer; and because there

* The Bandage was made with a broad linen Cloth, placed round the Body above the Hips; this was fastened upwards by a Scapulary, both before and behind, and a piece of Linen was sewed behind, somewhat in the form of the T Bandage, with a Hole cut to admit the *Penis* through, and this was fasten'd forward to the circular Roller on the Abdomen, which kept the Compresses on the Wound secure.

was also some hazard of the external Wound healing before the internal parts of the *Urethra* or Bladder, therefore small Pledgets of soft Lint armed with the *Lini-ment. Arcæi* were gently placed to the bottom of the Wound. In about eight weeks the Cure was finished, and he now makes Water in all respects as well as ever.

OBSERVATIONS.

From this Operation, I shall make the following Remark for Practice, *viz.* why People stricken in years, in an ill habit of Body, or those who thro' the dread and danger of the Anguish and Hazard of Life by a violent Operation, are resolved not to submit to the grand one for the Stone, may not have a palliative Cure by an artificial Aperture made into the Bulb of the *Urethra*, on that side where it enters into the Neck of the Bladder, which being performed, the Patient himself may at any time afterwards pass up an Instrument, such as a Probe, and push back the Stone,

when the Passage is obstructed by it *. This Expedient, safe in itself, will afford Relief to those who live in extreme Misery, without risking their Lives, by a violent Operation, since the parts cut thro' are of very little Importance as to the danger of Life, and will save the frequent Expence of sending for a Surgeon in the Extremity of a Suppression of Urine; these Persons must otherwise continue in Anguish perhaps for many hours, till he is fetched five or six miles to draw off the Urine; and even then, the Patient is in some Danger of an Inflammation, by having the Stone forced from the Passage, since frequently in ill habits of Body such a Disorder is ready to seize the parts, and more especially, if the Operator omits Bleeding, or afterward administering a Clyster. --- On the contrary, when the Stone obstructs the Passage of the Urine, even at the first onset, we can gently push it inwards, with-

* Dr. Douglass proposed somewhat like this some years since.

out danger of an Inflammation; and at the same time, if needful, may inject the Bladder with any lubricating Decoction, such as that for the Syrup of Marshmallows, Honey with Milk or Oil, &c. or whatever else shall be judged requisite to wash away any Slime, Gravel or Matter, by which the increase of the Stone will be further prevented.

It is possible to reap another Advantage from this Operation, but first, the callous Lips of the artificial Fistula must be taken off by escharotic Medicines, or a Knife, and then the Wound may be dilated with sponge Tents, &c. to such a width, as to admit of a pair of small extracting Forceps, capable of taking away the Stones, if they are small, thro' this Wound; and if there should be one too big for the passage, it may be broken by the Forceps, (as I have seen it happen in the lateral Operation) and brought away by piecemeal. --- Besides, if there is any Fluid now known, that will dissolve the Stone, without injuring the Bladder, as the *Lixivium*

Capitale, or any part of Mrs. Stephens's *Lithontriptic*, certainly this is the Gate it should enter in at; because the frequent Introduction of the Catheter is apt to bring on an Inflammation, Distention and Destruction of the Tone, if not bursting the Bladder, in the common way of injecting it; since frequent repetitions in a day are necessary to the intent of dissolving the calculous Mass. But it happens quite contrary in our new Method, since the Fluid injected may be conveyed immediately on the Surface of the Stone; and the quantity will neither over-distend nor rack the Coats of the Bladder: for the porous calculous Matter may absorb part, and the remainder may be either let out immediately, or otherwise; that is by introducing the Finger, first up the *Anus*, and then pressing upwards the lower part of the Bladder, which lodges on the *Rectum* or strait Gut.

Again, if at any time afterwards, a Stone should be formed, with how much ease and safety may it be extracted thro' this

Aperture, since the Sphincter of the Bladder may be dilated sufficiently at any time, especially, if the parts are first bathed with emollient Stupes, or the whole Body immersed in a warm Bath ? after which, some fine Oil made warm must be injected into it.

The OPERATION.

The Patient may be placed on a Table in the same Position as that for the lateral Operation, then introduce the grooved Staff into the Bladder (if it is cold weather it ought to be put into warm Oil or Water to prevent pain, and facilitate its easy Passage, which it will perform by relaxing the *Urethra*, &c.) Then cut thro' the Integuments close to the inferior side of the *Penis*, till the *Urethra* is denuded, introduce your Knife thro' the membranous Canal on the Groove of the Staff, carrying the Edge somewhat downwards, that the Perforation may be on the beginning of the Bulb of the *Urethra*, where it becomes almost strait;

strait ; this being performed, you must first introduce a Dossil of Lint down to the Staff before it is withdrawn, and a Digestive with a proper Bandage is necessary to finish the Operation.

The chief Art afterwards is to procure callous Lips, that the Wound may become fistulous; and this is to be obtained by keeping a piece of some solid substance continually in the Wound.

The Incision should not be made near so low down, as that which was formerly performed in the old way, or cutting by the greater Apparatus for the Stone in the Bladder ; because by this means, there is no danger of wounding either the *Rectum*, Neck of the Bladder, Prostate Gland, nor any considerable Blood Vessels ; neither will the Consequence be attended with Lacérations, Abscesses, Incontinence of Urine, or Inability of Procreation : But all or some of these are often the Consequences of extracting the Stone from the Bladder in the lateral Operation, nay sometimes an incurable Fistula cannot be avoided; I may there-

therefore with great justice recommend this Operation to Practice. --- Relative to the same Subject, I shall here insert the following curious Case communicated to me in a Letter from the ingenious Dr. *Thomas Leigh* of *Farnham* in *Surry*, whose Abilities in the Profession have long since distinguished him.

I opened the Body of *John Verudell*, aged 71, he had for 3 years before been grievously afflicted at times, with the most agonizing Symptoms of the Stone in the Bladder, such as violent pains in its Neck, while the *Regio Pubis* and *Perineum* were often exasperated by Stoppage and Difficulty in voiding the retained Urine, which in itself was so acrimonious, as seemingly to cut its own way by Drops, attended with a Tenesmus, and lastly violent Vomitings: On opening the Bladder, I found it distended with bloody Urine, the internal Coats were much inflamed, and contained several small Stones, both of a triangular and oval Form: The largest were somewhat bigger than Date-Stones, all loose except two in-

inclosed in a Cystus, adhering to the Bladder; some of the Stones were very rough, the rest smooth with fabulous Matter, grumous Clotts and Mucosities which exceeded three Ounces in weight; what chiefly surprized my view, were several fungous Excrescencies arising internally on the concave part of the Bladder, near its Neck, the inner Membrane, as I judged, having been abraded by the sharp Edges of the rough Stones, together with the acrimonious Salts of the Urine; and more remarkable than these, was a large fleshy Expansion, three Inches in breadth, and above two in length, having its Origin from the under part of the *Sphincter Vesicae*, and lying loosely extended. (like a valve) over the *Meatus Urinarius*. This Expansion occasioned, while in that Position, the dreadful Suppression of Urine, he so often said came from something he felt to clap from the under part of his Bladder; he sometimes found relief, by inverting his Body on the support of his Head: I often proposed to him the passing a Catheter, but he to his dying

dying day, under the severest pains, would not comply, tho' I often urged to him the immediate relief he might find by it, and little or no pain in the performance.

This Case is communicated as an uncommon one, that it might be a Caution to *Lithotomists*, since the Operation in this disorder could not have succeeded, but a palliative Relief might have been expected from the use of the artificial Fistula, as the urinary Passages were clear.

Introduction to Fractures of the Cranium.

The Variety of Circumstances which attend Injuries of the Brain and Fractures of the Head, make it necessary to give several Cases, in order to explain their many different Appearances and Degrees both of Safety and Danger ; for we are to consider the Manner in which the Injury is received, the Instrument by which it is inflicted, the Nature of the Wound, and the Symptoms

suc-

succeeding; as for Instance, a sharp, blunt or pointed Sword, a Bludgeon, Brick, Tile or any hard Body, falling from a high Place, a Blow by accident in beating the Head against a Wall, Penthouse or the like, or a Fall from a Precipice. These and some others are sufficient to cause *Concussions*, *Fractures*, *Fissures* and *Depressions*, the three last of which may be either compound or simple, that is, they may reach thro' both Tables of the Skull, or only thro' one; they may also differ in this, that the internal *Lamina* or Table may suffer, whilst the external remains sound, and *vice versa*. — The Symptoms succeeding such Misfortunes may be enumerated in the following order, viz. bilious Vomitings, involuntary Evacu-
 ations of the *Fæces* and Urine, Bleeding at the Mouth, Nose or Ears, a Defect or total Loss of the Senses of seeing, hearing, smelling or tasting; Inability of one or more of the Limbs, Vertigos, Palseys, Deliriums, Comas, Snorting, grinding of the Teeth, Lethargy, convulsive Twitchings, with a hard and intermitting Pulse, frequent
 lifting

lifting up the Hand to the Wound, and lastly, with or without an *Erysipelas*: These Symptoms will make the Application of the Trepan justifiable, even if there is no Wound or Depression appears on Examination.

Of a Wound upon the Head with a Fracture of the Cranium.

Robert Farquarson, Esq; of the Island of Barbados, on his return home late one Evening, was attacked by one of the Hound-Dogs, as he was getting off his Horse: In his own Defence he drew one of his Pistols, and fired, but unluckily the Barrel burst, and drove the Lock from the Stock, so as to strike him on the superior part of the *Os Frontis*. --- Mr. Skeete, sen. the Plantation Surgeon, was sent for, who treated the Wound as a common contused one, for five or six days, at the Expiration of which, I received a Letter from a Relation of the

Patient's, the Hon. *Philip Gibs*, Esq; Chief Baron of the Court of the Exchequer, desiring my attendance.---It was on the 11th of *October*, 1747, that I visited this Gentleman, whom I found under a strong Coma, and his Relations informed me, that for two Days he had lain in that drowsy State, which was accompanied with sudden twitchings and grinding of his Teeth at times; his Pulse was full but irregular, and his Extremities were very cold; having awaked him, I asked how he found himself; he said that his Head and Eyes were painful, and then dropt asleep; on rousing him again, I observed, that the Eye opposite to the wounded side was dim, and he said he could not discern me, and as it were in a moment he fell a snoring. --- These Symptoms induced me to acquaint his Friends that there were suspicions of the Brain being injured, and that it was therefore prudent to send immediately for the Family Surgeon; who being come, the Dressings were taken off, on which appeared a visible Fracture, with the Bones forced inwards, and

and the Pulsation of the *Dura Mater* was seen very high and strong. Having scalped the Patient, I applied the Trephine, raised the depressed Pieces of Bone, and removed a Splinter which had pierced the Membranes of the Brain; he was dressed according to Art; afterwards a Clyster was injected, and some Blood was taken from his Arm.

The next day, and also the following, his Coma continued, notwithstanding he had been bled twice: On removing the Bandage and Dressings, I discovered a black Speck, under the *Meninges Cerebri*, near the Breadth of a Silver-Penny; having introduced my Lancet, a Drop of Matter flowed out, on which I dilated the Membranes with the Probe-Scissars, let out near a Tea Spoonful of Matter, and with my Forceps took out the Piece of his Hat, which had been drove thro' the Bones by the Force of the superior Part of the Hammer of the Lock, and which was exactly of the same Shape.—Next day his drowsy comatous Symptoms abated, and after three

or four Days they went off intirely: The Cure was finished in the usual Time, after several Bleedings, and a low Diet; since which, he has been in *England*, and returned to *Barbados* hearty and well, and is now married to Miss *Judith Allen*. This is a strong Presumption, that he enjoys a perfect State of Health, and feels no ill Consequences, from a Wound seemingly so terrible.

OBSERVATIONS.

By this Case we may see how absolutely necessary it is to examine, (after the Operation) whether any extraneous Body is forced in, or drove thro' the Coverings of the Brain, since the Symptoms did not go off after trepaning; but continued, till the piece of Hat was extracted. ---- It will therefore be always prudent to enquire, whether the Head was covered at the Time of receiving the Injury; and also whether the Hat, Cap, or Handkerchief, &c. has lost any part of its Substance; and more especially

especially in Wounds, inflicted by Musket Balls, which must always be attended with something of this Nature; for extraneous Bodies are frequently drove under the Membranes, beyond the reach of ocular Inspection; Fractures therefore of the Head, made by Pistol-Balls, altho' there should be two Apertures in the Skull, should undergo an Operation, notwithstanding what some Authors have said to the contrary; suppose, for instance, that the Ball or Slug should perforate the Head, about the superior part of the temporal Bone, and pass obliquely upwards, making its exit thro' the parietal; I say in such a Case the Trepan ought to be applied, and more particularly if there is a Coma; for is it not reasonable to believe, that either a Splinter of the Bone, Wadding, or part of a Slug, or a whole Slug, may be lodged out of sight upon the Brain? And pray can we expect to save the Patient's Life, whilst such extraneous Bodies remain? --- Besides, there is another reason why the whole piece of the Bone should be sawed out from one

Perforation to the other, which is, to procure a Discharge to the extravasated Blood, which must follow such Accidents; since Musket-Balls cannot make their Passage without wounding at least some of the arterial or venal Tubes, which are impressed as it were on the internal Surface of the Skull, from which their Contents will be continually dripping on the Meninges of the Brain, which in time must form Abscesses, and large Suppurations of the Brain itself. We have some Instances of such Misfortunes, and therefore, I shall content myself with giving you one, which is in *Le Dran's Observations*, Chap. XXIV, p. 83. --- The Substance of which is as follows.

On the 17th of *February*, 1721. a Woman, about 26 years of Age, received a Wound by a Pistol clapped close to her Head, and which made two Openings; these Wounds were dressed in the usual Manner (says the Author, finding the Skull ready trepanned by the Ball) and the next day the Elevator to raise a Depression, on each

each side of the Border of the Hole, and the Lenticular to smoothe the Edges were only required; on the 26th, the *Dura Mater* and cortical Substance of the Brain beginning to separate, the bigness of a large Nut was cut off, and this Operation was repeated three different times, from this to the 3d of *March*; notwithstanding the Syndons and Pressure of Lint, to resist the excessive Motion of the Brain, grinding of the Teeth, Delirium and Fever, preceded by Shiverings constantly attended each Dressing, till the 9th of *March*; afterwards a Calm succeeded for six or seven Days, at the Expiration of this Term, the same Symptoms returned, with a copious Suppuration of the Brain, which washed off five Shots and three Slugs. The Quantity of *Pus* decreased, when these extraneous Bodies were discharged, whose weight had occasioned an Inflammation before.---The Cure was finished by the 15th of *May*.

Of an Incised Wound thro' the Cranium, and of another Wound on the Scalp, causing Symptoms of a Fracture cured without Trepaning.

The Second Case of a Fracture of the Cranium.

A Negro Fellow named Tom, belonging to the Hon. James Carter, Esq; of Barbados, about the latter end of March 1748, was discovered stealing Provision out of the Ground, in the Night; such as Yams, Edder, and the like. The Watchman of the Field endeavoured to take him, on which a severe Battle ensued: Amongst several other Wounds, the Thief received two large ones by an Incision of the Head; one of these opened the Skull near three Inches on the left parietal Bone, down to the superior part of the *Os Frontale*; it was so wide, that the Meninges of the Brain were seen thro' it; the other Wound was on the right side, in length about two Inches, near to the temporal Bone, but with-

without a Fracture. --- About three days after I was called in by the Doctor of the Plantation, when I found the Negroe as described, and attended with gratings of the Teeth, Spasms, Ravings, Watchings and the like.

On removing the Dressings of that Wound with a Cut thro' the Bone, I found the Membranes of the Brain untoucht, the Cleft was wider than the Edge of a Crown-Piece, and some little Pieces of Bone stood jagged about the Edges, which having removed, I made the inward Edges of the Bone smooth; as I could find neither Depression nor Extravasation, I thought it unnecessary to apply the Trepan, therefore the Bone was covered with dry Lint, and over all a Digestive applied. The other Wound on the right side was drest as a Wound by Incision, having first taken off the Angles of the Scalp. --- Twelve Ounces of Blood were now taken from his Arm, and a Clyster ordered at Night, with a slender Diet.

Next Morning, notwithstanding his Bleeding, the Symptoms were encreased, his Speech faltered, Deliriums with furious Ravings succeeded, and he had not once closed his Eyes, from the time of receiving the Wounds; yet the Dressings came off, with a laudable Discharge. --- I now laid open the Wound on the right side, when I discovered the *Pericranium* not wholly divided, but only here and there cut thro', which I laid open to the Bone, the whole extent of the Wound. --- Being drest up, more Blood was taken away, and his Clyster repeated. --- The next day his Symptoms were asswaged, which daily abated, and at the proper time the Edges of the divided Bone scaled off, and the cementing Fluid issued forth, to rejoin the Disunion: The Cure was compleated in about nine weeks, and I left him under the Care of Mr. Carter.

OBSERVATIONS.

The Spasms, Ravings, Watchings and Deliriums, which attended the Patient, did
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not proceed from the incised and fractured Bone, but from the Injury committed on the *Pericranium*, in the other Wound, as it was only divided in part, and therefore by opposite actions, as hauling and twitching, brought on an Inflammation upon the *Dura Mater*, as these Membranes have a Connection thro' the Sutures of the Head. That these violent Symptoms proceeded from an Inflammation of the Meninges of the Brain, and originally by consent from the torn *Pericranium*, seems very evident, since they all went off as soon as the Incision was carried through its whole length.

III. *Of a Fracture of the Head, with a Suppuration of the Brain.*

In the Month of *August*, 1740, *Robert Simmons*, a Boy of about 10 years of age, Son of Farmer *Symmons* of *Maidenhead-Farm*, distant from *Reading* about 7 Miles, being in the Field in Harvest Time, received

ed a Blow or Kick from one of the Horses in a Cart, which fractured the frontal Bone on the left side, in several pieces, and bent the Forehead inwards, like to a large Bruise in a tin, copper, or pewter Vessel; the Depressure reached near down to the *Minor Canthus*: A neighbouring Quack-Surgeon, spiritually authorised, to lop, dismember, &c. was fetched in to the Boy's Assistance, who immediately promised a perfect Cure, and in a short time. --- But after having him under his Care, for five or six days, dressing the Wounds, (I doubt not) but with his *Samaritan* Balsam, never failing Plaisters, and such like Nostrums; the Patient became raving, and was afflicted with convulsive Spasms: On which the Boaster much affrighted, took his Leave, and pronounced him irrecoverable. On the 11th of *August* early in the Morning I was called out of my Bed to the Patient, when I found him delirious, with an Inflammation on his Head and Face of the Erysipalious Kind, and swoln to so great a degree that I could scarce discover either his Eyes,
Nose,

Nose, or Mouth; and the whole Head seemed a Mass of soft Dough. On removing the Pledgits, and extracting the Plugs cram'd into his Head, there flowed a bloody Ichor from the inside of the *Cranium*; the Wound was larger than a Crown-piece. On searching with my Probe, I found the Edges of the fractured Bones, forming an Arch, with part of the frontal and temporal Muscles lacerated.

Having every thing necessary for trepaning, I made an Incision in the superior part of the frontal Bone, first measuring with a String from the middle of the Chin to the coronal Suture, lest I should injure the *Sinus Longitudinalis* of the *Dura Mater*. -- Having removed the Scalp and *Pericranium*, I cut out a piece of the sound Bone, with about a fifth of the Fracture, on which issued out some extravasated Blood; it was through this Perforation that the Elevator was introduced, between the Bone and Meninges of the Brain, and the deprest or inward bent Bones were raised up and restored to their natural Situa-

Situation, whilst the loose Fragments were taken away. During the Operation, Matter or *Pus* flowed from the inferior part of the Wound, and through the lacerated *Dura Mater*, which Membrane I opened, and there discovered a Fragment or Splinter of the Bone, which had been forced through into the Brain. This I extracted, and then dilated the Membranes the whole extent of the Wounds, on which near half a common Glass full of the cortical Substance of the Brain and *Pus* were discharged; this opening was sufficient to prevent a second Suppuration, since the Discharge afterwards daily decreased, and the Cure was perfected in good Time; some of the Bones rejoined themselves, after they had scaled around their Edges; a low Diet, Bleeding, Blistering, Fomentations, &c. were carefully used during the whole Course of the Cure, which was at last happily finished to the great Satisfaction of his Parents and himself.

IV. *Of a Concussion of the Brain, without a Fracture or Fissure, made by a blunt Weapon.*

In February, 1744, a Negro Fellow named Tom, the Property of Henry Warren, Esq; M. D. of Barbados, received a Blow on the left *Bregma*, with a small contused Wound; it was drest as such by the Practitioner of the Family, and treated as a common Wound: The second or third day a Fever ensued with violent Pains of the Head, Watchings, Ravings, Loss of Sense, with other Symptoms, which accompany Fractures of the *Cranium*; being called in, about the fourth day, I could not find with the Probe, nor otherwise, any roughness or asperity of the Bone; however as the Symptoms were violent, I removed the Scalp and *Pericranium*, by a thorough Incision, tho' the Membrane was found and adhered firmly to the Bone; but even then could not discover either Fracture, Fissure or Depression, altho' I had gently wiped the

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the denuded Bone with Ink and Water. ---
 I dressed it up with dry Lint on the Bone,
 over which I placed a Digestive, and secur-
 ed them by the simple Kerchief Bandage ;
 twelve Ounces of Blood were drawn from
 his Arm, and a Clyster was thrown up
 afterwards.---Next day the Symptoms were
 greatly alleviated ; however, more Blood
 was taken away, and the Clyster repeated,
 which, in a few hours, abated his Com-
 plaints ; every Symptom on the fourth or
 fifth day disappeared, the Wound had a
 laudable Digestion, and we believed him to
 be out of Danger ; accordingly I took my
 Leave, committing him to the Care of that
 excellent Practitioner Mr. *John Linahan* ;
 but it was not many days before I was
 again called in, the Symptoms being return-
 ed and encreased ; for now he was afflicted
 with a Coma, and faltering in his Speech ;
 his Words also were inarticulate ; these
 Symptoms, and his lethargic Condition
 induced me to think, that there must be a
 Fissure, and that it had escaped my No-
 tice ; I therefore made use of the Rugine,
 and

and scraped the Bone till the Blood appeared, but even then, no Fissure could be found. We dressed up as before, and he was again let Blood,--Next day he was seized with a Paralysis of his right Eye-lid, which in a few hours closed; his right Arm, Side, Thigh and Leg became stiff, and soon after, the *Abdomen* became hard, and almost without Motion, and Clysters, tho' of the most stimulating Quality, had no Effect. As the Sugar Crop was now begun, and the Negroe was of great use, the Operation was deferred till this Time, that his Master might not lose the Advantage of his Labour; but it being now evident, that a Concussion of the Brain was the Cause of the Trouble, the Trepan was applied, and the Bone was taken out, on which some extravasated Blood appeared on the Surface of the *Dura Mater*, which did not adhere to the *Cranium* internally. On examining the piece of Bone, it was found, tho' at first I thought it was crack'd; for an Impression of a capillary venal Twig of this Membrane had, on a cursory View,

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the semblance of a small Fissure, which had almost led me into a Mistake.---However his Symptoms abated some time after the Performance of the Operation.

The *Meninges Cerebri*, on removing the first Dressings, puft up thro' the Aperture of the Bone, which Appearance made me imagine, that some Blood or *Pus* was retained. On making a Perforation with a Lancet, some bloody Matter flowed; I then dilated the Wound and unloaded the Brain of a considerable quantity of Matter.

The Cure was finished in six weeks from the Operation, the Negroe became hearty, followed the hard Labour of the Field, till the time of my leaving the Island, in the year 1749, and is now the Property of *Haines Gibbs*, Esq; who married the eldest Daughter of Dr. *Warren*.

REFLEXIONS.

As there appeared on the Head no marks either of Fracture, Fissure or Depression, and as the external *Pericranium*,
retained

retained its Adhesion, and also the first bad Symptoms abated after scalping and went off by repeated Bleedings, I was induced to defer the Application of the Trephine, since Contusions and Lacerations of the Scalp, especially when the Aponeuroses of the temporal and frontal Muscles are injured, will bring on Inflammation, and such Symptoms as are not unlike those of an injured Brain.---On the other hand, if the Patient had fallen from a Horse, high Precipice, &c. I should on the Approach of the Symptoms, have readily resolved on the Operation, concluding, that there must be a Concussion of the Brain, because when Action and Reaction happen, as it were at the same instant of time, such Oppositions will cause violent Commotions in the Brain, and thereby a Rupture in some of the internal blood Vessels, in their membranous Coverings, or at least in the vascular Fibres, which, as so many Ligaments, fasten the *Dura Mater* to the *Cranium*, from which Extravasations happen; for when the Force is impressed on

the Head, and neither the Body gives way, nor the *Cranium* yields to the Blow by breaking, the violent Shock must be transmitted to the Brain, and a sudden or momentary Agitation will follow, capable of rupturing some of the smaller venal Canals. It is to be observed, that the Recovery of his Limbs, Speech, Sight and peristaltic Motion, did not happen immediately after the Operation, but they gradually regained their own peculiar Faculties, and the Symptom that first disappeared, was the comatous Lethargy; which strengthens the Opinion, that a Coma is a true Prognostic of a Concussion of the Brain.

A Concussion with an Extravasation may also be known in the Operation of the Trepan; for in such a Case, the Bone cut out, will be fixed in the Crown of the Saw, because the Fibrillæ which fasten the *Dura Mater* to the *Cranium* are broke, and the Meninges of the Brain are pressed from it downwards, partly by the Injury, and partly by the Weight of the extravasated

ed Blood, and therefore can have no longer Contact with the Skull; on the other Hand, in Fractures where there is little or no Extravasation, the piece saw'd through will adhere by these Fibrillæ to the Membrane.

I conceive such Observations are abundantly sufficient to convince us, that violent Blows on the Head will cause a Tremor, like to the Vibrations of a Glass-Vessel on Percussion, and that such momentary Agitations are capable of rending asunder the Fibres which unite the Membranes to the internal Bone, and more especially if the Head resists the Force impelled.

In curing Fractures of the *Cranium*, let me remind you, that it is absolutely necessary, that an Exfoliation from the Margin of the perforated or saw'd Bone should be perfected; for without this, a thin callous Substance will form the Cicatrice, which can be no Safeguard to the Brain for the future: Therefore let the Scalp be kept from covering the Bone, till such time as the parts have scaled around, which Ope-

ration of Nature is often very visible, and sometimes insensible; however this last Performance may be known by the gelatinous grain-like Globules, shooting from the Edges of the perforated Bone, which in a few Days, meeting in a central Point, fill up the Orifice, and produce a strong and firm Protection, form'd into bony Spirals. And afterwards the Patient has no Occasion to be burdened with wearing a tin, lead, or silver Plate, so much talked of, by some ancient and modern Writers.

When the Head is suffered to heal without this masterly Workmanship of Nature, may not the Pulsation of the *Dura Mater* be seen and felt through? and is not the Person daily under Danger of a sudden Death, by a Blow, a Fall, or any heavy Body falling on the part? or will he not ever after be subject to Pains in the Head, or Dimness of Sight, on the Alteration of Weather? Nay does he not risque the Hazard of his Brains bursting out on violent Inflammations and Coughs? Besides, is he not in Peril of falling into a Lethargy, or
 losing

losing in some Measure the Use of Reason, by Nature forming some time afterwards a bony elastic Covering, which, by overgrowing and pressing on the Brain will stop, or at least impede the Circulation in the *Meninges Cerebri*? Surely you will not controvert these things, and therefore, as an Instance of one of these Misfortunes, I shall quote the Case related by Dr. Jamieson, in the 2d Vol. of the *Scotch Medical Essays*, p. 217.

“ Some Slates falling from the Roof of
 “ a House four Stories high, upon the
 “ Head of a Girl about thirteen years of
 “ age, broke and shattered her *Cranium* at
 “ the Place where the sagittal and coronal
 “ Sutures meet, making a Depression of
 “ the Bone of about four Inches Diameter.
 “ The Symptoms attending this Accident
 “ were common, viz. an universal *Stupor*,
 “ bleeding at the Nose, Difficulty of breath-
 “ ing, with a full irregular Pulse. I im-
 “ mediately took twelve Ounces of Blood
 “ from her Arm, and sent for all the Phy-
 “ ficians

" ficians and Surgeons of this Place, who
 " agreed to trepan her speedily, which I
 " performed. When I endeavoured to raise
 " the depressed Pieces of Bone, they were
 " all found separated from the neighbour-
 " ing sound Bone, and therefore were all
 " brought away, and so left a terrible Chasm
 " in the *Cranium*. The *Dura Mater* was
 " covered with a *Syndon* dipped in *Mel. Ro-*
 " *far.* with a little Tincture of *Myrrh.*
 " Pledgets wet in the Tincture were ap-
 " plied to the *Cranium*, and the other
 " common Dressings were put on. Being
 " laid in Bed, an emollient Clyster was in-
 " jected, and procured two plentiful Stools;
 " and before Night she recovered the Use
 " of her Tongue, and all the other parts
 " of her Body, except the left Arm, which
 " continued in a paralytick State for eight
 " Days.

" She was kept at a low Diet; and the
 " Cure went very successfully on, and was
 " completed so far in three Months, that the
 " Teguments were cicatrized.

" On

“ On the fifth Day after her Wound, I
 “ had caused a Plate of Lead to be made
 “ for covering all the Dressings, and kept
 “ it on all the Time she was under my
 “ Care, with two Pieces of broad Tape
 “ put through four Holes, one on each side
 “ of the Plate before, and the other two
 “ behind, tying the Ends under the lower
 “ Jaw, and behind the *Occiput*.

“ Notwithstanding the Wound being
 “ skinned over, I recommended the constant
 “ Use of the Plate of Lead laid over a Com-
 “ press upon the Cicatrice, to supply the
 “ Want of Bone; and she kept it on two
 “ Months after I left off seeing her; but
 “ then thinking herself secure, she laid it
 “ aside, and continued well seven Months
 “ more, when the *Kink-cough*, (*Tussis con-*
 “ *vulsva*) then epidemick in this Place,
 “ seized her; and was so violent one Night
 “ when she was in Bed, that the Cicatrice
 “ in her Head was lacerated, and the Brain
 “ was pushed out at the Teguments. Be-
 “ ing instantly called for, I found above
 “ two Ounces of the Brain lying on the

“ Scalp : After cleansing this away, I applied Dressings with the Plate of Lead over them, thereby preventing a greater Discharge.

“ The Symptoms that followed this direful Accident were an entire *Paralysis* of the Limbs, she retaining still the Use of her Reason and Tongue, but much inclined to Sleep, with a low depressed Pulse and *Anxietas Cordis*, and her Urine was discharged involuntarily. In this Condition she continued five Days, and then died. Her Friends did not allow any Inspection into the State of her Brain after Death.

“ This Girl's Case will teach us how little we need be surpris'd at tormenting Head-achs being brought on by frequent violent coughing, when the Brain must be so strongly pressed on the *Cranium*.

“ We may likewise learn, from the unhappy Accident that occasioned this Girl's Death, to be very careful to supply any Part of the *Cranium* that is wanting, especially after the Bones of it are so firmly joined as to prevent their yielding,

"ing, and thereby enlarging the Cavity
"within them.

"Since I did not open the Body, I can
"pretend to assign no Cause, why the
"Parts furnished with Nerves from the
"Medulla Spinalis should have been so much
"affected with Palsy in the five last days
"she lived, while she retained her Speech
"and Senses, contrary to what might
"have been expected."

By way of A P H O R I S M.

Fissures are to be discovered by two different Methods, *Ink* and the *Rugine*. The former directs us by insinuating itself into the Crack, after wiping the Bone over with it; but here the young Artist must be particularly careful that he does not take a Suture for a Fissure, since the black Fluid will stain both.

The *Rugine*, or Raspatory, is the other Method, and is a very safe and necessary Instrument: It may be used till such Time as the Blood-Vessels of the *Cranium* begin to

to pour out their Contents, and stain the Bone. --- Some Care is requisite, lest the *Periosteum*, or the Sutures and the Insertions of the Muscles should be wounded in this Operation. --- You have two Advantages arising from this Method; for if there should not be a Crack, this Instrument will bring on Granulations of new Flesh, and promote a speedy Cure; and also prevent the Bones becoming foul, by admitting a new Influx of vital Humours.

If a Fissure should be visible, the Trepan should not be applied, till the Rugine has been used, (except you are certain that it runs through the whole Bone) because sometimes it is no deeper than the Diploe, and often reaches not so far; in such a Case the Rugine is necessary for its Certainty, and may save the Trouble of the Operation.

The Scalp should always be entirely cut out the whole length of the Fissure at least, because by so doing you prevent the Matter lodging between it and the Bone,

Bone, and will not risque a Caries or Abscess on the Head.

When the *Pericranium* adheres firmly to the Bone, it must not be scraped off with the Ruginé, but be cut through with a fine Scalpel, without any Inequalities in its Edge, and the Incision must be one and the same; for if any of this Membrane should be left only partly divided, a Fever and Inflammation will succeed.

If the Fracture or Fissure should be large and very long, it will be necessary to apply the Trephine at each Extremity; also if it should cross any Suture, there must be an Excision of the Bone on each Side of such Suture.

When there is an absolute Necessity of applying the Trephine, it may be performed immediately. The Reason why the Ancients and some Moderns have deferred the Operation till the Day after Scalping, was on Account of the profuse Hæmorrhage, which often follows, since astringent Powders and Bandages were employed to stop such Fluxes of Blood.

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But now we have a Method more certain which is the Needle and Thread.

When there is no Wound on the Head, nor any Fissure after Scalping; yet often the Trepan is necessary; for there may be a Fissure of the inward Table only, or part of it may be separated, or bent inwards; and these Disorders are far more dangerous than Fractures. --- Hippocrates has taken Notice of these Misfortunes (*De locis in homine*) where he asserts, "that if the Bone
" is crackt, and the Fissure proceeds in-
" wardly, *the Case is very dangerous*;" He adds, "that the Saw is to be used, in order
" to prevent the Sanies from flowing thro'
" the Fissure of the Bone upon the *Dura*
" *Mater*, and so putrefying the same."

This Aphorism has an Exception; for the Trepan must not be applied in Depressions of the Head in Children, because their Bones are too flexible to bear the Force; and not only on this Account, but they will also in a little Time recover their natural State without any Assistance by their own elastic Springiness. --- A Case of

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this Nature happened to a Baronet in Oxfordshire, when he was about 4 Years of Age, who by a Fall, had the the frontal Bone on one Side visibly indented, and for a Day or two had violent Symptoms; some proposed the Operation, but Reason took place, and it was deferred; whilst Bleeding, Clystering, and a Diet gave Relief, and the Bones recovered their natural State in Time, by their own Power.

When very violent Depressions with continual bad Symptoms attend Children, they in such Cases may be relieved by removing the Scalp, and discharging the spilt Blood between it and the Bone; the Weight of which, if suffered to remain, would obstruct its Recovery, by its own Power, and also indanger an Imposthumation.

The Bones of Children's Heads being soft, flexible and not thoroughly ossified, must yield even to a slight Injury; and therefore a Concussion or Extravasation on the Brain can scarce ever happen to such tender Infants.

When the *Cranium* of an Adult is broke into five or six Pieces, you are to restore
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those Parts that have any Adhesion, and remove those which are separated; since the former will rejoin by the cementing Fluid, thrown from their own Vessels after their Edges have sealed.

When the Bone has been cut through, you are to remove all Splinters, Fragments and Scales separated from its Substance by the Injury; the Membranes of the Brain must also be laid open for the Discharge of any heterogeneous Bodies, Matter or extravasated Fluid; and this Treatment will prevent a Suppuration of the Brain, which often proves fatal.

If any preternatural Body should be forced into the Brain, and it cannot be extracted through the Fracture, nor by Perforation, you are not to leave the Work to Nature as some have advised, but make another Excision of the Bone, and extract the unwelcome Guest.

As to the Dressing for Fractures of the Skull, a Variety of Authors are to be met with, who give peculiar and tedious Directions; therefore for my own Part, I think

the more innocent the Applications are, the better; But I would absolutely forbid the Use of Syndons, since their pressing on the *Dura Mater* must disturb the Pulsation and Circulation in this Membrane, and bring on Abscesses and large Suppurations.

Instead of Syndons being placed upon the Membranes, I always took Care that nothing in the Dressings might offend such nervous Parts; and therefore with a broad thick Pledgit of dry Lint covered the whole bare Bone, which not only prevented the other Dressings from injuring the Brain, but had this good Quality of absorbing the Matter in Digestion, and preventing any Sanies from drilling through the Orifice or Fracture. --- Notwithstanding this Care it has often happened that my Patients have complained of great Pain after Dressing; but the Symptoms have gone off on removing them immediately, and were only brought on by some of the Lint touching the *Dura Mater*, as it might move on making the Bandage over all.

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As to the Fungus and Bunches of Brain starting out through the Wounds so much talked of by the Ancients and Moderns, I declare, I never had a Patient under such unhappy Circumstances. --- And I believe when they have happened, they must arise either from improper Applications, as a Syndon, some extraneous Body, as a Fragment of Bone, Slug, or a Portion of whatever covered the Head at the time of the Accident; or else from a Neglect of dilating the *Dura Mater* the whole extent of the Wound; probably they may also arise from an ill Habit of Body, or through Neglect of a proper low Regimen during the Cure, all or any of which may be prevented by the judicious and experienced Practitioners.

COROLLARY.

From what has been said and from History it appeareth, that the Practice of trepaning is as old as the Days of *Hippocrates*, for Fractures, Fissures, Concussions, Depressions,

fions and Punctures of the *Cranium*; but why so safe an Operation should not be useful in obstinate Diseases of the Head arising from inward Causes, and after internal Medicines have for Years been found ineffectual in relieving the Distressed, I cannot conceive, since some particular Instances there are, of violent Fevers leaving the Patient to linger out his Days in a State of Lunacy, Palsy, Lethargy, loss of Speech, nay often Foolishness, continual Dribblings, and the most helpless State. — I say how melancholy must such Cases be to themselves and Family, and especially to the latter, when the whole Subsistence depends upon the Man's Labour, Skill or Direction? I would ask why some Attempt should not be made for Relief, and where can you find an Operation so safe in itself as the Trepan to open the dark Mystery of the Origin of such violent Maladies?

It is true, we know not for Certainty that the nervous Coverings of the Brain are by inward Disorders subject to Induration, Relaxation, Distention, Inflammation, Sup-

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puration; and Obstructions. But doubtless they are liable to undergo such Changes, as well as other nervous Membranes in the Body, since their Structure is of the same Texture; and therefore we ought to labour after a Discovery of those Things which are of so much Importance to every Individual.

— It is morally certain, that many Lives have been saved by this Operation *alone*, when the Symptoms arising from the external Injury have had great Affinity with those springing from internal Causes; Reflections drawn from such Instances might give us some Insight into the nature of such Distempers, and Discoveries may be hoped for, from an Examination of the Brains of those who expire under such Calamities, since such morbid Bodies are the only proper Subjects for such Inquiries. — It might have been expected that some of our ingenious and excellent Hospital Surgeons in *London*, long before this time, would have open'd the Doors of such dark Mysteries, by peeping into the State of the Brain of the Maniac, and obliged the World with their Observations.

By

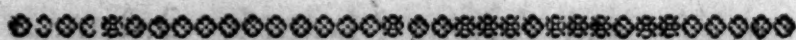
By no means would I have it conceived, that this my new Proposal for relieving a troubled Brain, is, plann'd merely out of my own Head; being well assured that there are several Instances of Maniac People having undergone this safe and salutary Operation, and by it been relieved after all other Experiments have failed; Dr. *Barry* of *Cork*, and some other Gentlemen of the Profession, I find, recommended this Operation some Years since, to be performed on a distracted Gentleman: It is true the Patient died in ten Days after, though not by the Operation. ---- He tells us however, that the Head being open'd after the Person's Decease, the *Pia Mater* was of a Colour between green and yellow, and it was hard and callous; also in most Places twice the Thickness of the *Dura Mater* without any appearance of Vessels, and cut like soft Horn. ---- It appears by his account that the Operation was not prosecuted any further than exciding the Bone; whereas if the Lancet had been introduced through the *Dura* and *Pia Mater*, Relief, if not a Cure might have been expected;

pected ; for doubtless the Cause of Distractedness in this Case proceeded from the Membranes being callous, and consequently it ought to have been cut through, since it was the principal thing to be consider'd; if any Fluid should be the Source of Madness and it should fluctuate on the Surface of the Membranes, doubtless the removing part of the Skull would be of Advantage in such a Case ; but if the Fluid is seated either between the Membranes, or, on the surface of the Brain, trepaning alone cannot remove it ; but the Membranes must be laid open for its Evacuation and Discharge ; and if one Perforation is not sufficient, it is absolutely necessary to have recourse to a second Operation on the opposite Side, since they may be performed with as much Safety as opening a Vein in the Arm. ---- Doubtless, Madness proceeds from various Causes, which we are not thoroughly acquainted with as yet ; therefore I shall take the Liberty of describing a Case different from this related by Dr. Barry, --- viz.

A Negroe Fellow named *Buffoe*, who for several Years rambled about *Bridge-Town* in the Island of *Barbados*, being the Terror of naughty Children, infomuch that his Name filled every one with fear. --- I had observed this Man about two Years before his Death; sometimes he was quite stupid, fullen, dejected and melancholy, and in his Paroxysms he would sing, and dance about the Streets whole Nights and Days together, and often at other Times burst out in Oaths, Ravings and furious Madness, infomuch that the Officers of the Town were obliged to confine him in the Stocks or Cage, till his Fit of Madness ceased. --- So great were his *Watchings*, that he was never observed for Years to sleep, though he would sometimes lay himself down on the Pavements, and be calm.

He died in the Year 1747, in the Guard Prison, and I procured his Body for my Lectures, which I was at that time giving at Capt. *William Bispam's* --- on taking off the Skull in the usual place, I observed the Membranes did not adhere to the inward

Table of the *Cranium*, but were relaxed, shrivelled and lay loose, the whole Brain was wasted considerably, and its Texture was very soft; so great a Quantity of yellow extravasated Serum was distributed over both Ventricles, that the Brain appeared in a state of Fluidity and Maceration; there was also no small quantity of bloody Water remaining in the Box, after the Brain was taken out.



The Case of Mr. Mills.

Whatever Disputes have happened among Authors concerning the Rules of performing the Operation of Gastroraphy, I should not trouble myself with them, since few, if any, has performed the Operation compleat, if we believe a late Author,* who to prove this, quotes *Monf. Du Verney*, as being the most eminent Surgeon in the French Army, and the most likely Person to have had an Opportunity of performing it; but alas, this

* *Sharp's Operations*, P. 9.

Man's extensive Practice cannot furnish us with one single Instance. --- Is it possible? or can it be presumed, that Misfortunes requiring the Operation of the Gastroraphy compleat are to be found in our own Country? and that an English Surgeon can satisfy your Curiosity with two Instances of the like nature, both which fell under his own Care; nay, more too, one of the Patients was cured, yet this Surgeon never danced round the *Hotel Dieu* or *La Charite*? --- As to the Etymology of the Term I shall take it in it's full Sense, which is no more than stitching up any Wound of the Belly; but it is to be observed that Wounds of this Class are often complicated with corresponding ones in the intestinal Tube.

August 17th, 1739. I was called up in the Night to visit a young Man, Son of Mr. Mills the *Wantage* Carrier, who was at the *George Inn* at *Pangborn* a Village within five Miles of *Reading* in *Berks*.

On my entering the Chamber I found him in Bed, with a Wound a little below

the Navel almost down to the Pubes, and great part of his Bowels out of his Body, a large piece of his Cawl upon the Floor, his *Asperia Arteria* or Wind-pipe partly divided, and also perforated in two other Places.

—— Whilst the necessary Apparatus was getting ready, I ordered two Bottles of Wine to be made hot; we now cleans'd the Blood from the Bowels, by washing them with a Sponge dipt in the Wine; finding one of the Intestines wounded near an Inch in length, I took it up with the Glover's Suture, and then passed each end of the Threads through the *Peritonæum* and Muscles of the wounded Lips of the Belly, that the incised Bowel might come into Contact with the inside of the Wound; one of the Standers by held these Threads, whilst I secured the Blood Vessels of the *Epiploon*, and returned the Bowels into the Cavity; first placing him on his Back, and raising his Hips and the Trunk of his Body with Pillows, whilst his Head and Chest were declined, by removing the Bolster off the Bedding; which Position kept the Teguments

ments of the Belly from being on the stretch, and facilitated the returning of the Bowels as well as prevented their returning, in the Operation. --- Notwithstanding what Authors have directed for reducing the Bowels by observing to return first, that Part, which came out last, I was regardless of this, since my Business was, with all Expedition to get them in their Situation again; and then their own, and the Peristaltic Motion doubtless would order them right. --- In the Execution of this Operation I took great Care that the tender Vessels of the Bowels might not be injured by my Fingers or Nails, and when Wind obstructed their return, I gently drove it back into the Bowel with the palm of my Hand, which is a less dangerous and better Practice than to wound them by pricking them, as Mr. *Sharp* has order'd. --- Having reduced the Intestines, the interrupted Suture was performed for their Security; Bolsters and a broad Girthweb Belt for the uniting Bandage, kept on the Dressing. --- Having now finished the lower Region, I gave my Assistance to
his

his Throat; to the large Wound I applied the twisted Suture as in the Hair Lip, and superficial Dressings with adhesive Plaisters to the other Wounds.——Notwithstanding there had been a great Effusion of Blood, I drew from his Arm about six Ounces, after which a Turpentine Clyster was thrown up, which remained some time, and then came away with some Excrements.——As the People of the House were liable to be censured, I was greatly importuned to examine into the Cause of this intended Suicide, the Substance of his Narrative was as follows,——*viz.* That a young Woman near *Colebrook*, whom he had courted for some time, had promised to marry him; that he had been at the House several Days, waiting for their Nuptials: On the morning fixt for the Ceremony, the Girl revoked her Promise and declared She never would marry him, notwithstanding all the Arguments of her Parents——on which he took his Farewel, and set out to meet his Father's Waggon on the Road, which was returning from *London*.——The Road lay thro' *Reading*, where
he

he stopt and bought a Knife of Mr. *Willis* a Cutler, and then set out on his Journey to the Inn.——On his Arrival he pretended to be very ill, and desired to go to Bed; the motherly Landlady made him some Whey, which he drank before her.——

When he found the House still and every Body in Bed, he first attempted to destroy himself by cutting his Throat, but missing the Carotid Veins and Arteries, he failed in his hellish Attempt. However feeling but little Pain, he made the second Effort, by stabbing his Wind-pipe in two Places below the other incis'd Wound; after some Time finding no great Alteration, he got out of Bed, open'd the Chamber Door and call'd to the Ostler, who lay in a Room over him. The Landlady hearing a strange rattling Noise in Words unintelligible alarmed the House.——In this Interim he made a third Attempt by opening his Belly, letting out his Intestines, which he said gave him great Pain; on hearing the Family coming, and being resolved to die, he made a fourth Attempt, by endeavouring to separate his
Bowels

Bowels from his Body; in this Action he cut off above six Inches of the Cawl, and wounded one of the Bowels; then in a violent Rage he flung the *Omentum* on the Floor, just as the Family enter'd the Room.

— But to return. — About eight in the Morning I took my Leave, and at six in the Evening I visited him again, when he was very low with Faintings between whiles, sufficiently sensible, but did not greatly complain of Pain; I now took away five Ounces of Blood, ordered a Clyster of a strong Decoction made from a Sheep's Head, in which were dissolved near two Ounces of Venice Turpentine; the Intention of which was not so much to promote a Stool as to mitigate Pain, and inwardly comfort the Bowels by way of Fomentation; and therefore it was ordered to be injected very warm, and to be repeated every four or five Hours, provided each Clyster came away in due Time, but not otherwise, lest they should endanger a Distention and Inflation of the intestinal Tube, and force the Stitches of the wounded Bowel to break
their

their hold, which might have proved fatal: Warm Cordials and an Anodyne at Night were ordered.

Next Morning, Fomentations and hot Dressings were applied to alleviate the Inflammation begun, and more Blood was taken from his Arm, notwithstanding which the whole *Abdomen* puffed up with great Tumefaction, and the Sutures began to cut their way thro' the Teguments; Spasms, and Convulsions on the third Day finished this tragic Scene, with a *Necrosis*.

REFLEXIONS.

The great Distention of the Belly and the sudden Inflammation terminating in so hasty a Mortification, might be produced either from the Bowel letting fall its Contents, or a large Quantity of Blood extravasated in the *Abdomen*, either at the Time of the Incision, or afterwards, from some small Artery or Vein which escaped my Notice, and such gentle Drippings by loading the Cavity, might bring on the sudden

Death; the repeated Syncopes or Faintings favour this Opinion, as well as the Quantity of Blood which trickled from the Wound after his Decease. The Reason for passing the Ends of the Threads from the incised Bowel through the *Peritonæum*, was, that the Intestine might more readily adhere to it, since their own Coats are very thin, and scarce capable of reuniting their distant Lips, more especially if the divided Parts are not brought close together, and even then, a slight Inflammation must be produced to effect an Adhesion, as we observe in Cases of Hernias, wherein the Bowel adheres to the *Peritonæum*, and therefore the Parts to be united are to be kept in Contact; for if it should happen, that the Lips of the wounded Canal should not re-unite, nor adhere to the Inside of the *Peritonæum*, the Consequence will be fatal, since their Contents, whether Chyle or Excrements, must fall into the Cavity and there produce either an Abscess or a violent Death.



The Second C A S E.

A runaway Negroe belonging to Colonel *Chernoc* of *Barbados*, on being discovered amongst some Pigeon Pea-shrubs, slit open his Belly and let out his Bowels; it was on the 8th of *April* 1748, about a Mile distant from *Bridge-Town*, in the Plantation of Dr. *Joseph Gamble*; from thence he was brought to the Colonel's Town House, where I was sent for to him.

On examining the State of the Case I found he had made a transverse Incision, at least two Inches long, a little above the Navel in the hypochondriac Region, thro' which the wounded Intestines came out.

Having placed two Tables together, one being somewhat lower than the other, and laid the Negroe on them with his Head and Chest declining, and washed his Bowels with hot Claret, to free them from the
 Straws

Straws and Dirt, with which they were covered, I perceived one of the Bowels was slit open near an Inch in Length, which I took to be the *Duodenum*; for some undigested raw Pease came out of it, and I unloaded this Bowel, by taking out many more, which I gave into the Hands of Mr. *Aversly* a Merchant, who out of Curiosity stood by me. Having made the Glover's Suture on the Bowel, and passed each End of the Thread through the Integuments of the Belly; I returned its Contents into their *Venter*, which were secured by the interrupted Suture. At this Time I well remembered my ill Success in the preceding Case, that an Inflammation must follow to cause an Adhesion, and that in such a State, a Distention of the Belly must ensue, which would endanger the external Suture cutting its way through; consequently the Intestines would protrude again.

To prevent this Accident, I took three large Needles and passed them through the Integuments and *Peritonæum*, which
were

were secured by twisted Ligatures well waxed, which kept their Hold till the Cure was perfected, which was at the End of seven Weeks, and my Suspicion was not groundless; for the other Ligatures gave Way in a little Time.

Plentiful and repeated Bleedings were strictly observed, Clysters, Cordials and Anodynes with Fomentations were administered according to the Rules of Art.

R E M A R K S.

May I not attribute this Cure chiefly to my new additional Suture, which was the twisted one, since a close Union of the *Peritonæum* with the abdominal Muscles is requisite, and also the incised Gut with the *Peritonæum*, must be kept in Contact; for the Cure of these violent Wounds, principally consists in the Bowels adhering to the inward Part of the *Peritonæum*, that this slippery Membrane again may borrow the cellular and fleshy Fibres of the abdominal Muscles to

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form

form a firm Cicatrix and Reunion of the Parts.



Capt. Burchell's Case.

In the Year 1744, a Bilander called the *Expedition*, belonging to *Lancaster*, ——— *Strangeway* Commander, being bound from the Coast of *Guinea* to *Barbados*, with Slaves, Teeth, &c. was taken by a *French* Privateer in her Passage. — Some few Days after the Capture, the first Mate, Mr. *William Burchell*, was put on board a *Dutch* Vessel, with whom they spoke at Sea, she was bound to *Surinam*, a large Colony on the Main.

From this Colony Mr. *Burchell* took his Passage in a Sloop called the *Betsy*, *Thomas Perry* Commander, bound to *Barbados*, to which Island she belonged, having for Owners Messrs. *Dominick* and *Anthony Lynch*.

The Vessel having fallen down from the chief Town of this Colony, to the Mouth
of

of the River called *Brand Point*, in order, as usual, to cut Fire Wood for the Voyage; it then blowing very fresh, and the Tide running in with great Rapidity, the Sloop rode hard, there being some Danger of her driving and running ashore; to prevent which, Mr. *Burcbell* went forward, and ordered more Cable to be veered out, which not being handed so nimbly as he wished, he stepped down to assist the Men. The Stoppers were off the Cable, when on a sudden the Vessel swinging round by the Violence of the Tide, forced the Cable to run amain, so that it caught both Legs of this unhappy Man, breaking and splintering them in a most terrible Condition; at the same Time, a Negroe also had both Legs broke, of which he died. — Thus entangled and drawn to the Side of the Vessel by their Weight, the Sloop brought up. Immediately the Boat was manned, and dispatcht to *Paramaribo*, (this being the Metropolis of this Colony, distant about twenty-five Miles) for a Surgeon, who dressed the Limbs as well as the Circum-

tance, and his Medicines would admit of, as the Vessel was in a few Hours to fail. In this dismal and shattered Condition he put to Sea, and after sixteen Days arriv'd at *Barbados*, having met with foul Winds and tumbling Seas. The Torment and continual Anguish he every Hour labour'd under, must surpass most others yet heard of, from the Description given by the Captain; for by the tossing of the Vessel, his Limbs rolled about, notwithstanding all Contrivances with Beds and Pillows; for sometimes they were almost doubled under him, and the Bones were heard to rub against each other. — In this reduced weak and melancholy State he was brought to his Lodging ashoar, on the 22d of *February* 1744. — I was immediately sent for out of the Country, where I had that Day cut a Gentleman for a *Fistula in Ano*. On my Return I found the State of his Case as follows, *viz.* Both Legs were broke, the Fracture of both Bones in each compleat, near an Inch of the Bones lay bare, lapping over each other, and

and much discoloured: Many Splinters also lay loose in the Wounds, and the Ends of the Bones were turned yellow, spongy and tending to a Caries. On moving the Limbs, a blackish Matter, such as is discharged from old Abscesses, flowed largely, with a nasty foetid Scent almost too much to be withstood; the Limbs had some Heat, although some Part of the Wounds were in a gangrenous State. Mr. *Wright*, who was Surgeon of the same Vessel when she was taken, arrived with the Bilander a few Days before the Patient, he having, with four Men and a Boy, conquered ten *Frenchmen*, and retook the Vessel; this Surgeon being present, proposed the immediate Amputation of both Limbs; but it being almost dark, and the Patient very weak and faint, Cordials and Sleep seemed at present more necessary to support Nature, and less hazardous; it was therefore agreed, to defer the Operations till the Morning. After the eighteen tail'd Bandages were prepared, with the whole Apparatus for compound Fractures with Com-

minution, we endeavoured to lay the Limbs in a somewhat more natural Position, and at the same Time to remove some of the splintered Bones, as also to open the most pointing and prominent Parts for the Discharge of the pent up Matter, taking off the Ends of the discoloured Bones, as well as giving the gangrenous Appearances deep Scarifications, that the divided Vessels might stand some Chance to inosculate again, and let go their Contents for nourishing his poor Limbs.—— A regular, gentle and moderate Extension was (after removing the extraneous Bodies) set about, which in some Degree corrected the crooked Limbs; but this gentle Treatment could not be prosecuted so far as we could have wisht, by reason the bony tho' small Splinters, on moving, wounded and lacerated some Blood-Vessels, on which ensued a Hæmorrhage; therefore the Limbs were placed on Pillows without a Box, in such Positions as seemed most easy for the Patient, that his Rest might as little as possible be interrupted; and to this intent, an

Ano-

Anodyne was called to our Assistance, having first covered the bare Bones with Lint exprest from *Sp. Vin. rect.* made warm, the Scarifications with *Ol. Terebinth.* and the Wounds with *Liniment. Arcei* made hot, covering all with Pledgits armed with the old Digestive, and securing the Dressings and Limbs with Compresses and Bolsters made wet in hot camphorated Spirits, fastning all with the eighteen tail Bandages.

We then took our Leave, and gave Directions for two Persons to attend him the whole Night, and to keep their Hands above his Knees in Case of Spasms and Startings.

Feb. 23d. The next Morning his Pulse was high, accompanied with a Fever, flushing in his Face, his Voice low and hoarse, and his Words inarticulate; he seemed confused and restless, yet had slept between whiles, on which I took some Blood away. On examining his Limbs, they were warm above and below the Bandages, and without any *Crepitus*, which gave me some glimmering

mering Hopes of succeeding without the Operation, at least however, that I was in Time for it.——In the Evening I removed the Dressings, but had no Signs of a Digestion, unless that the Dressings seemed bedewed with a bloody watery Moisture; his Limbs were swollen, and on Pressure I felt a crackling Noise, notwithstanding they were warm, and the threatening Mortification had got but little Ground; on moving the Legs, there issued out a bloody Ichor from the Lacerations.---Stupes wrung from a strong lixivial Fucus of the hot Plants and Leaves, such as the Orange, Lemon, Lime and aromatic sea Sage, were applied for an Hour to comfort and cherish the Parts; after which a slight Extension was made again, and the Wounds were further dilated, in order to remove the remaining Splinters, as well as that the Medicines might be more closely applied; the sound bare Bones were covered now with Pledgits of Lint express from Alcohol made warm, as a Preservative against the pinguious Applications, Air or Matter,

ter, and the Dressings as before. — We persisted in this Method four or five Days, at the End of which, the Pledgits and Dressings came off with an Aspect of an approaching Digestion, and the Sphacelation was at a stand. — *March 4th*, The Sloughs being now loose and tending to Separation, and the *Crepitus* and Swelling disappearing, I attempted to reduce and place the Bones in their natural Position, having proper Assistants ready for this Intent, and in a great Measure succeeded. I took this Opportunity also, whilst the Assistants supported the right Leg, to take a thorough Inspection, and I found a Swelling rather on the right Side underneath, which I opened, and let out above a Spoonful of Matter, upon which the Patient seemed much eased. — The left Leg was much in the same Condition, and they were both treated as before.

March 6th, The Digestion was compleated, and the Sloughs separated, therefore once more I attempted a farther Extension gently and at Times, by which I gain'd my
long

long wish'd for Point, by bringing the Bones even, saving extraordinary Pain, risking no Hazard of encreasing the Inflammation by being too hasty, nor was I in danger of lacerating the already too much torn Limbs, which the usual Force in common Extensions must inevitably subject Patients to, and throw them into the most imminent Danger.

As it may seem strange that this Practice of not reducing Fractures immediately, is condemn'd by most Writers, I must beg leave to say it is founded on long Experience and Observation.

A P H O R I S M S.

First, A fractur'd Limb with great Contusion and Lacerations ought not to be attempted at first, unless it can be reduced with slight Extensions, because violent Haulings will tear the weaken'd Fibres, encrease the Inflammation, and produce additional Spasms and Contractions.

Second,

Second, Violent Extensions, and those repeated, will be succeeded with Startings, particularly in the Sleep, which sudden Motion will displace the reduced Bones, therefore all Labour is lost and the Work is to be done over again.

Third, The only Time to reduce Fractures is, when the Inflammation and Swelling have subsided; for at such a Time our Eyes will direct us, to bring the Bones together without riding; also a very easy Extension will reduce the Limb, scarce giving the Patient any Pain or Uneasiness, therefore such mild Treatment risques not the Trouble of reducing the Limb three or four Times, but secures the Reputation of the Surgeon, by finishing his Work in a masterly Manner: But to proceed.

March 14th, We now thought it a proper Time to make a strict Examination of his Hips and Nates, not being able before, thro' Hazard of disturbing the crazy Limbs too much, tho' a slight search had been made from Time to Time: For this Intent, we placed Napkins under his Arms, Loins, Thighs

Thighs and Legs, which being held by eight Assistants, and raised from the Bed at the same Time; in this swinging Posture I took a view of his Posteriors, discovering several black Specks near the Loins, the Cuticle erased as in Blistering, and the neighbouring Parts inflamed: The Spots were toucht with a Lancet. Digestives were applied and *Turner's* Cerate to the eroded Parts, and with camphorated Spirits we embrocated the rest.

—— Whilst these Things were transacting the Bed was made soft, and from this swinging Posture he was carried over to the other side of the Bed, which seemed to revive him; for the Bed was wet by the dripping of his Urine, as well as by the Discharge and Applications; his Thighs were inwardly galled from the Moisture, which must have made him restless and uneasy.

March 26th, The Discharge from the broken Limbs was now very inconsiderable, some of the Wounds began to incarn, and the smaller were upon the point of cicatrizing; when on a sudden a Fever came on, which lasted five Days, and terminated in
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an Abscess of the left Leg and greatly disordered the right; from this Time to that of getting him to set up we had several Abscesses, large Discharges of Matter, which required Openings and counter Openings; and these large Drains so reduced the Patient, that sometimes he was in Danger of sinking. Doubtless these large Discharges kept back the radical Juices from forming the cementing Fluid to reunite the divided Bones, for it was four Months before he was able to use the Crutches, and upwards of two Months more before his Wounds would suffer him to be removed into the Country, where he finished the Year, and some little Time after returned quite recruited in Flesh and Strength, and took the Command of a large Ship call'd the *Comberbatch*, upwards of 350 Tuns, bound to the Coast of *Guinea*, for Teeth, Gums, Wax and Slaves; in about ten Months he made the Voyage and returned hearty and well, walks now without even limping or a Stick.

R E M A R K S.

The Benefit of a well adapted circular Roller in Fractures is too considerable to be past over in silence ; for the Advantage arising from it (besides the good Qualities it has in keeping on the Dressings and supporting the Compresses) is the Office of an artificial *Periosteum* ; since this Membrane is ordain'd by Nature to set the Boundary of the bony Dimensions. Now it happens in all violent compound Fractures, that this nervous Covering is always torn asunder, and the Bone thus denuded of its Guard, the callous Fluid from the Ends of the divided Parts has an unlimited Power to extend and spread itself, as much as the habit of the Body is capable of. To prevent this Disorder we must call to our Aid this circular Roller, this artificial *Periosteum*, which will curb such Luxuriances in Nature, and set the Boundary becoming to the once well shaped Limb ; and it is highly necessary to continue its Use many Months after the Recovery.

I once was called in to examine a Leg that had this Misfortune, and the Surgeon's Character and Skill were brought in Question, as not having reduced the Limb properly; on Enquiry I found the Bones were set with great Accuracy (without riding) but through neglect of continuing the Roller a proper Time, the Callus had form'd a large protuberant Body; I cleared him of the Censure, order'd the Patient to bath, to have the Part pump't daily, and to use the Bandage continually, which Rules he followed, and in about two Months returned well: I am afraid this Disorder is too often to be seen to the no small Discredit of our Art and Profession.

Houghstam's Sailor's Case.

In the Month of June 1743, I was sent for to a Sailor, belonging to the Brigantine *Jane*, *Houghstam* Commander, riding at Anchor in *Carlisle* Bay.---The poor Fellow by a Fall from the Main Topmast Head (where

he was splicing some of the Rigging) broke his Thigh Bone against the Gunnel of the Vessel.

Being brought to a Lodging-house on the Wharf, I found the *Femur* was forced thro' the Wounds; the superior Extremity of the fractur'd Bone had forced its Way externally thro' the *Vastus externus*, and the inferior Bone appear'd thro' the Teguments internally at least an Inch and a half. Having provided my Assistants, I dilated each Wound near an Inch, in order to facilitate the Reduction, observing whilst the Extensions were making to press the Bones thro' the same Parts of the lacerated Muscles where the Parts had made their Passage, but in this Attempt I fail'd; therefore I open'd the Parts more, and again attempted the Reduction, but could not succeed nor move the Bones. --- Colonel *Nicolls*, Dr. *Hern*, Capt. *Houghstam*, and many other Gentlemen being present, I informed them of the Necessity of taking off part of the inferior Extremity of the Thigh Bone, which being consented to, with the capital Saw (first placing

placing an intervening Body under the Bone) I cut off an Inch and a quarter of its Substance, and then reduced the Fracture. ----- Having washed the Wounds with warm Wine and cleans'd the Parts from Blood, and all the Necessaries being ready for such Fractures; I treated the Wounds with *Ol. Terib.* made hot, with small Pledgets of Lint armed with *Liniment. Arcaei*, and others very large covered with the old Digestive open'd with *Sp. Vin.* covering the whole Limb with the Oatmeal and strong Beer Poultis made very warm; The Bolsters, Compresses, Junks and Bandage were applied according to Rule, then I drew from his Arm about ten Ounces of Blood; and ordered an Anodyne to be taken in about two Hours Time.

The next Day he had a Fever, for which more Blood was taken away, the Limb swell'd and lost its due natural Heat; a Gangrene threatned, for which Stupes from the hot Plants were applied, and the Dressings continued, with Cordials and Anodynes till the fifth Day, when a Digestion came on, and his Fever intermitted, for which he

took a Decoction of the Bark. About the ninth Day I discovered a large Abscess formed on the outside of the Limb, about an Inch below the Wound, which being laid open discharged near four Ounces of Matter. This I dilated up to the other Wound where it ended: The Bones were now in sight; I drest now with milder Dressings, covering the solid Parts with Lint moistned in Alcohol to keep them from absorbing the Matter, &c.

16th, About the sixteenth Day we had great Drains of fetid Matter, and another Abscess formed in the inside of the Limb, which was open'd, and the Matter discharged. I could now pass my Probe from this Part to the Wound on the same side, thro' which I draw'd a Flamula in order to invite the Matter to this depending Part, securing the Hazard of fouling the Bones. In about four Days the Intention was answer'd, and the Discharge decreased, the Wounds carrying a good Aspect.

28th, At the End of the Month the Danger seemed to be over, the several Abscesses,

Ulcerations on the Skin, Inflammations, erysipelatous Swelling with livid Spots, and the whole Train of ill Aspects were surmounted; what now remained was to correct the Shortness of the Limb, and restore it to its due Length, that the Recovery might be without Lameness. In order to which, I first ordered a Staple to be drove in the Floor (on which his Bedding was) my Assistants made the Extensions, I then fastened some Girth-web into the Cloth fixed above the Knee, which I made fast to the Staple at the Feet of the Bed, then I passed some Slips of strong Sheeting within side of the Thigh outwards close up to the Groin and Nates, which were fastned to another Staple behind the Bed; this last Contrivance was to counter-act and prevent the Body from sliding on the fractured Limb, as well as secure it in the Position, and keep the Body steady.

In this Posture, or as near it as possible, the Patient continued near two Months, the Dressings being alter'd as the Symptoms required, and particular Care being observed.

to keep the Bones from growing foul by drying Applications, such as Alcohol.-----The Bones now began to scale or exfoliate, which continued near a Fortnight, at the end of which the Wounds healed daily, whilst we observed at every Dressing to make fresh Extension, and so by degrees stretch out the Limb to the Length of the other, with which it was compared, observing its Curvature also. The single headed circular Roller had now its Place, and in this Method he was treated till such Time as his Wounds were near healing; at the end of eighteen Weeks he sat up, craved for Food, recovered his Flesh and Strength, and soon after took to his Crutches.

At the Expiration of thirty Weeks he limpt very little, was judged capable of doing his Duty as a Sailor, and was entered on Board a Vessel as an able Man in the Service of *Codrington Carrington, Esq;* and Co. in about five Months he returned from *North America* in the same Vessel, wearing the circular Roller the whole Voyage.----- Before several Gentlemen I examined his Thigh, where

where I found a Node scarce large enough to discover where the Bones were separated.

——— This Case was looked upon by most People in the Island to be such an extraordinary Cure, that *Thomas Bedford* Esq; was desired to ask my Acceptance of ten Pistoles to buy me a Peice of Plate in Gratitude, which I accepted of, from the Town-Committee.

R E M A R K S.

Probably some may accuse me of too bold a Practice in attempting to save the Limbs of these two Mariners, and insist that the Art of Surgery commanded almost an immediate Amputation in each Case.—— However, let it suffice for the present, that I could not perform the Operations, because I am not so happy as to carry that Characteristic of Hospital Surgeon, and consequently it would have been unjustifiable in me ; however I sincerely wish that my Success herein may be so far instructive to young Surgeons, as never to let them despair, altho' a Case at first Sight may ap-

pear almost incurable, since doubtless Hope is much better than absolute Despondence; besides, every Surgeon ought to know it is his Duty to do the best he can for the Relief of the Afflicted, and let the Misfortune be ever so bad, he is not to leave his Patient to Destiny.—— Is it not worth our observing, that the Consequence of falling from such a height as the Main Top-Mast-head, must give a violent Shock to the animal Machine, and greatly disturb the nervous System; whilst the shattered Bones lacerate and tear the *Periosteum*, Fibres, Sinews and Muscles asunder. At such Time doubtless the Viscera in General, and Fluids in particular must suffer by the Shock, and as it were by a Tremour or convulsive Agitation, since the free Circulation of all the Fluids is for a Moment opposed. Such Disturbance to the animal Spirits doubtless is often the immediate Cause of Death. But when the Patient escapes with Life, frequent Venesections will give a new Spring to the Circulation, Power to the Vessels to absorb some of the spilt Blood, and in some Measure take
off

off Part of the succeeding Inflammation, as well as turn its rapid unequal Course, which is of great Moment to the afflicted, since in such like Misfortunes the Blood circulates more in Proportion to the diseased or weakened Limb than any other Part. —

Hence Inflammations and Abscesses are abated and partly prevented, as well as the Disturbances of the Body relieved. — I would seriously recommend Bleeding plentifully at first in all compound Fractures, and that it should be repeated in Proportion to the Strength of the Patient, and State of the Inflammation in the Wounds, to prevent large Suppurations and Fluxes of Matter. I doubt not but if I had observed this Precaution more strictly in these two Cases; and in Time, that is, in the first fifty Hours, I should not have had so many *Critical Abscesses and large Discharges* as I had to encounter with, which endanger'd their Lives; since Experience join'd with Observations are the necessary Requisites for a good Operator. *Tho' the barbarous and Blood-thirsty Nero* wish'd that the whole of the Roman

People were like the Head of a Poppy, that he might cut them all off at one Blow; yet I am sorry to think that the English Surgeons are become so much his Imitators, as to think they are not Masters of their Art, unless they have the Talent of shedding Torrents of Blood, for a Cure which might often be perfected by a proper Regimen, and a few simple Dressings. As for my own Part, I have seen so much of the Art I profess, that I would rather save twenty Limbs, than foolishly rush upon the Amputation of one, which might have been preserv'd by a frequent and duly protracted Visits, and also giving a few regular Assurances to Nature, who does not delight in having any of her Works mutilated and maim'd, and whose favourite Maxim it is, *that only the*

*Immedicabile Vulnus Ense recidendum, ne pars
sincera trabatur.* OVID.

The

The Case of Robert Chesterman, commonly called Buffer.

Robert Chesterman of Fryer-Street, in the Parish of St. Lawrence, Reading, in the County of Berks, is by Employment a Barge-Man.---On Monday the 6th of June 1737, being in the Service of Mr. Aldsworth of Newbery, and bound for London, it happened at Chessey-Bridge, that the Barge was likely to run foul of a Pile; to prevent which the long and heavy Pole was put over-board to guide her; and at the same Time there was a Rope called a Handsel, which was in a Moment to be passed over the Crutch of the Pole, to stop the Motion of the Vessel; unluckily this Rope happened to twist (or what the Barge-men call kink) and caught his Hand in between it and the Pole, which almost took it off. A Surgeon of Chessey dressed it three Times, and on the Wednesday following he was brought to Reading, to be put under
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my Care; I found him under the following Circumstances, *viz.* a yellow Aspect, violent Reachings and Vomitings, his Pulse irregular, Tongue dry, a Fever with Spasms between whiles. — The Abundance of Cloths with which the wounded Limb was wrapt up, were wet thro' with a bloody Water, on removing them, a putrid Stench proceeded, insomuch, that several of his Relations and Friends were obliged to quit the Room: The Hand was greatly swoln, and he had black and livid Spots, half way up his fore Arm, which was in a gangrenous State; the Wound (although round his Hand) was sewed up with several Stitches, all which I divided, and a large Discharge of confined bloody Ichor flowed instantly, the several Blood-Vessels divided, had their Extremities lying loose, also the Ends of the lacerated Tendons were out of the Wound, the metacarpal Bone of the fore Finger was cut into Pieces and broke into several Splinters, its *Flexor* and *Abductors* lay bare, and the Hand seemed almost torn off, having several of the metacar-

tacarpal Bones injured. ——— I first cleansed the Wounds of the bony Splinters, and then divided those Tendons that were only so in part, to prevent their healing and contrary Action. The back of the Hand from the Wound up to the Wrist, and down to the Ends of the swoln Fingers, was scarified, as also the Palm of the Hand upwards inwardly, from which Incisions a bloody serous Fluid issued forth.

——— I drest with Dossils armed with the Liniment dipt in *Ol. Tereb. Æther.* very hot, large Pledgets of the same, covering all with a Poultis of strong Beer Grounds and Oatmeal. ——— I took my Leave, and ordered a Dose of the *Tberiaca* with *Sal. Corn. Cervi* and acquainted the Relations with the Danger he was in of losing the Limb if not his Life, telling that it was adviseable for them to persuade him to compound for the latter, by sufferingt he Loss of the former.

In the Evening I called again, when I found him afflicted with frequent Vomittings : He complained of violent Pains in
his

his Head, convulsive Twitchings, with a high and quick Pulse; about six Ounces of Blood were taken from his Arm, and a Mixture of *Sal Absinth. cum Succ. Lymon & paucul. Laud. liquid. &c.* was ordered, two Spoonfuls of which were to be taken every two Hours. 2d. Next Morning a strong lixivial Fomentation with the hot Plants was prepared to give an artificial Heat or Nourishment, to supply the Defect of that lost through the torn Blood Vessels. —

Having every thing in readiness, I removed my former Applications, the Lips of the Wounds were sphacelated, and the Limb was gangrened up to the Wrist. — The Parts were well bathed with Flannels express'd from the Stupe, and on their Application, each was sprinkled with a strong camphorated Spirit (the Method of pouring Spirits into the Fomentation is useless because the Heat must oblige the Spirit to evaporate or fly off; I mention this Hint because I have seen this Piece of Folly committed.) After near an Hour being spent, I made deep Scarifications on the Wound
and

and Limb, then drest with *Ol. Tereb, Æther*: moderately hot, Pledgets armed with the *Ol. Digestive*, in which was incorporated some Alcohol, over the sound Part, Pledgets of Tow made wet with the same, whilst the Oatmeal and strong Beer Poultis covered the whole Limb, securing all with a circular Roller.

3d. The next Morning the Symptoms not being alleviated, and observing a *Crepitus* on the lower Extremity of the Arm, I proposed amputating the Limb, and to call in a Surgeon to justify my Proceedings, as well as to assist me in the Operation; both which were absolutely denied, the Patient declaring he would be contented to die with his Limb on. — I removed the Dressings, had no Digestion, and only a thin discoloured Discharge, the Limb appeared much the same as the Day preceding; I scarified again, and drest as before.

I now considered what a dismal Case I had to encounter with, what Danger my Character was in, and the small Hopes of giving Satisfaction to his Friends, &c. as well

well as the little Prospect of curing from external Medicines; therefore I resolved to give the Bark, having considered on its good Effects in Mortifications, from what had been related by Mr. *Rushworth*, Mr. *Sbipson*, Mr. *J. Douglass*. Notwithstanding the Fever was raging and very high, insomuch, that the Patient was delirious between whiles, I wrote as follows, *R. Cort. Peruv. ʒij Theriac. Androm. ʒss Syr. Croc. q. f. f. Bol. 2d vel 3tia. quaque hora sumend.* --- The Prescription was sent to Mr. Ald. *Tilliard*, a very judicious Apothecary, who sent the Medicines in a little Time, --- I now took my Leave, advising his Wife to let his Drink be Sage Tea, White-Wine Whey, and such thin Liquors. --- And as he much craved for strong Beer, I agreed to indulge him with half a Pint made warm, with a toasted Piece of Bread, this I granted, knowing well that these People are very hard Tipplers of this Liquor, and therefore it was not necessary to baulk Nature entirely, since Custom is her second Support.

4. Next Day I found little Alteration, he had no rest all Night, the Vomitings continued though not so frequent, for which I ordered the saline Mixture to be taken between the Doses of the Bark; on examining the Limb, I observed the Integuments of the middle Finger and its Metacarpal were separated, and had left the Bone bare; I scarified again, and dressed as usual, after cherishing the Limb a considerable Time with the Stupes; the Bark was continued and I ordered that he should be kept quiet.

In the Evening I called on him, he had twice slept a little, and each Time his Vomitings were abated, and the Pain in his Head was relieved, his Aspect was also better.

The fifth Morning I discovered his Countenance and Skin much clearer, he had some Sleep in the Night, with very little Startings, his Pulse was more calm and regular, and what he had taken now stayed with him, his Skin was moist and seemed bedewed all over, being in a breathing Sweat.

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— By this Time he had taken rather more than ten Drams of the Bark.

The Limb had now another Face; for the Mortification seemed at a stand, the Stench decreased, and the *Carpus* seemed somewhat inflamed; I now scarified the Lips of the Wound, and the Wrist, from which some Blood appeared, the putrified and rotten Parts were cut off, and I-drest up with the hot Applications as usual.

In the Evening I visited him, when he was asleep and had lain quiet above an Hour, fetching his Breath very regularly, being in a full State of Perspiration. — I ordered the *Cortex* to be continued, but not to disturb him for it.

The sixth Day I found my Patient very chearful, his Countenance lively, and without its former dead yellow Hue, the Pulse more calm, a general Moisture all over his Body, he had slept great Part of the Night, which had refreshed him, his Reachings were gone, and the convulsive Spasms very little or seldom troubled him. — The Mortification began to separate, the Wound
I had

had Moisture and the Scarifications tended to suppurate. ---- I continued the Dressings with the Poultis, and ordered the Bark every four Hours. ---- He now craved for strong Beer, which I indulged him with, allowing him a Pint a Day.

The Morning following he was brisk and lively, and told me he had slept almost all Night, and sweated the Time, and was very composed. ---- I opened the Hand and found the Dressings with Signs of an approaching Digestion; I now took off the fore Finger with the metacarpal Bone, having taken up the Artery, I covered the Stump with dry Lint, and dressed the Parts as before; the Bark was ordered to be taken every eight Hours, he having now taken about two Ounces of it.

In the Evening he was brisk, and seemed free from any bad Symptoms; but complained of a little Pain in the Wound, and was desirous of sitting up to have his Bed made, his Face had now regained its habitual florid Aspect.

Nothing extraordinary happened for three or four Days, at the expiration of which, the Sloughs separated with a laudable Digestion, and I drest it up according to Art.

13th, About the thirteenth Day the Bone of the middle Finger appeared bare, and not only the Tendon which I had before divided with my Scissars, but also the Flexor Communis and Abductor slough'd away, the Finger itself was greatly enlarged; I introduced the Probe thro' one of the Orifices into that Part of the Wound in the Hand, on pressing which some bloody Matter issued out. — As the Bone had changed its Colour to a Yellow, and seem'd foul; I propos'd taking it off in the Joint, and inform'd the Patient that it could never be serviceable to him, but on the contrary would be a great trouble, as well as delay the now hopeful View of a Cure; but all I could advance would not avail; however he submitted to have the Abscess dilated up to the Wound first made by the Rope, which being performed, I found the metacarpal Bone of the same Finger bare. — This was
drest

dress according to Rule, and the former Wounds as usual, only leaving off the Oatmeal Poultis.

In the Evening he complained of Pain, seemed very uneasy, and was feverish.

About the sixteenth Day every Thing seemed very well, unless the useless middle Finger, which was likely to give me a great deal of Trouble, and therefore I urged its being removed, but could not persuade him to lose it. --- I now straitned the Fingers, and secured them on a Paste-board, lest they should contract, dressing up according to Art, and securing all with a good Roller.

From this Time to that of finishing the Cure, which was at the End of nine Weeks, we had many Abscesses in several Parts, all which were laid open as soon and as frequently as they appeared; we had also Exfoliations from the Bones, and the Wound healed in good Order.

Here we see great Part of a Limb saved from perishing by the Use of the Bark, when it would have been impossible from

external Applications only, to have any Expectation of it; for from what I have seen both in our Hospitals at Home and Abroad, all Methods must have failed of Success in this Case without it. — As to the middle Finger it continues immovable, and has imposthumated several Times, being very large; when his Hand or Finger becomes painful, he frequently applies to it a warm Beast's Paunch.

The Use of the Bark in Mortifications, either from internal or external Disorders, is doubtless as advantageous, if not more so, than any other Medicine yet known; and when this Drug is good and fresh, it certainly will much assist us in the Cure of Wounds, Ulcers, &c. and put a Period to all Mortifications except one Species, which is that proceeding from (as sometimes happens) the Ossification of an Artery. — A Case of this Nature Mr. *Edward Naish* communicated to the *Royal Society*, in the followings Words, which I shall take the Liberty to recite, as probably it has not been observed by every one, viz.

“ Mr.

" Mr. Consett, of Cleveland in Yorkshire,
 " a Gentleman of sixty-seven Years of
 " Age, who all his Life-time before had
 " enjoyed a perfect State of Health, sent
 " for me on Account of a Mortification,
 " which began about a Month before on
 " one of his Toes, and by gradual Advan-
 " ces in that Time, had reached half
 " way his Leg, and this without any ma-
 " nifest Cause. He saw himself dying dai-
 " ly by Piece-meals, but Heart-whole, as
 " he express'd it, and had a pretty good Pulse.
 " I propos'd Amputation as the only Re-
 " medy, which I told him would give him
 " some Chance for his Life, though the
 " Odds were against him. This he rea-
 " dily consented to, and as soon as I could
 " get my Dressings ready, I went about
 " the Operation. The Leg being taken off
 " at the usual Place, which was about four
 " Inches above the Mortification, about
 " two or three Ounces of Blood issued out
 " from the muscular Part, but upon slack-
 " ing the Turniket in order to look for
 " and tie the Artery, not one Drop of

“ Blood flowed out to my no small Sur-
 “ prize, and upon feeling the Extremity of
 “ the Artery, I found it hard and callous ;
 “ however I secured it by a Ligature as
 “ usual, and dressed the Stump. The Pa-
 “ tient, who had born the Operation with
 “ the greatest Resolution, being put to
 “ Bed, I was desirous to examine the Leg.
 “ And having dissected the Artery with its
 “ two considerable Branches, as far as the
 “ *Tarsus*, I found them for the most Part
 “ ossified ; that is to say, the Trunk where
 “ it was amputated was ossified about two
 “ thirds of its Circumference, about a quar-
 “ ter of an Inch lower the whole was bo-
 “ ny, leaving so small an Orifice, that it
 “ would only admit of a Hog’s Bristle,
 “ not a very fine Probe, which I endea-
 “ voured to introduce. A little lower it
 “ was on one Side bony, on the other
 “ membranous, then again an entire Case
 “ of Bone ; here and there for the Breadth
 “ of a Barley-Corn there would be no
 “ Bone at all. I opened about two Inches
 “ of the internal Branch immediately above
 “ the

“ the *Malleolus*, it appearing blacker than the
 “ rest. After it had been washed, I found
 “ in it about two or three Drops of coagu-
 “ lated Blood, and now it is expanded and
 “ dried, it is one entire *Lamina* of Bone
 “ as thick as the Shell of a Pigeon's Egg,
 “ and of an unequal Surface. I dissected
 “ three Ramifications of this internal Branch
 “ in the Foot, only one of them had a
 “ very small Piece of Bone in it, about
 “ half an Inch from the Trunk. The other
 “ great Branch that runs on the Ligament
 “ that ties the Fociles together, was not
 “ so much ossified as that which I have
 “ described, the bony Shell or *Lamina* was
 “ contained within the Coats of the Ar-
 “ tery. This Ossification (which is the com-
 “ pleatest of any yet heard of) was no
 “ Doubt the Cause of the Mortification and
 “ of my Patient's Death, which followed
 “ four Days after the Amputation. I should
 “ have been curious to see how high the
 “ Ossification reached, but was obliged to
 “ be elsewhere when the Patient died. I
 “ doubt not but these Cases are more com-

“ more than we imagine. For when we
 “ see Mortifications seize the Extremities
 “ of aged People, we commonly attribute
 “ them to a Decay of Nature, or an Ex-
 “ tinction of the vital Warmth; this I
 “ believe is often the Case, and I am more
 “ inclined to think so from two or three
 “ parallel Cases, which I have been con-
 “ cerned in since I came into *Yorkshire*.”

This Annotation cannot be improper,
 since it may so fall out, that a Surgeon
 may meet with a Mortification arising from
 such like Disease of the arterial Tubes,
 and not finding Success from the *Cortex*
 may condemn its Use in all Mortifica-
 tions.

But as the most rich and resplendent Me-
 tals are easily sully'd by passing thro' im-
 pure and dirty Hands, so the most powerful
 and efficacious Medicines may be depre-
 tiated, and often brought under an almost uni-
 versal Contempt, by being prescrib'd by a
 set of unskilful and injudicious Pretenders;
 who neither knowing the Causes and Signs
 of Diseases, nor the Powers and Qualities
 of

of the Medicines proper to remove them, write Recipes at random, without knowing or caring whether they will kill or cure.

So long as this is the State of Physic in our Nation, our best Medicines will be commended by some, and condemn'd by others; so that the Nation in general cannot reap the Advantages they otherwise might. Tho' I am an Enemy to a Spirit of Oppression, yet I could heartily wish the Legislature would interpose in the rooting out of Quackery, and encouraging Men of Skill, Genius and Honesty; then should we know the genuine Excellences of our Medicines, and have them properly exhibited. I have been tempted to this short Digression by the late Clamours against the Bark, the Worth of which I know too well to suffer it to be run down by a set of low and unthinking Mortals, who seem to have resigned their scanty Shares of Judgment to something they know not what.

of

Of Diseases of the Teeth.

The Face no doubt receives a considerable share of its Beauty from a good set of Teeth, which are also the principal Ornaments of the Mouth ; but such Decorations are only Part of Nature's Intent, since they were ordained likewise to articulate the Voice, as well as to incide and break the solid Aliments sufficiently small, for their more speedy Attrition and Digestion ; and whilst this Action is performing, the Saliva is by the force of the Muscles prest out of their Glands to mix with the Food, facilitate its Passage down to the Stomach, and assist its Dissolution ; their exquisite Order, curious Structure and durable Texture, cannot but make some noble Impressions in our Minds, when we suffer ourselves to reflect on the Wisdom, the Skill, and the Design of the great Architect. — If then they are so useful and subservient to our Purposes, certainly they require a more particular Regard,

than

than what has hitherto been paid them in any of our English modern Authors, and more especially as they are subject to various Diseases, Indispositions and Accidents, arising either from internal Causes, external Injuries, cold Air, hot Liquors, and other Substances taken in at the Mouth. Yet notwithstanding the many Benefits we enjoy from their noble Designs, scarce one Word of their Diseases is mention'd by late Writers. Mr. *Chefelden's* Anatomy, tho' it has gone thro' six Editions with Additions, has taken Notice of only one Distemper seated in *Highborn's* Sinus. ——— Almost toothless stands Mr. *Sharp's* Operations in Surgery, notwithstanding it has run thro' almost as many Impressions as his Master's; and *Gastaker's* Operations (translated from *Le Dran*) with Remarks, Plates of the Operations with a Set of Instruments, &c. are equally silent on this Subject.

But if we look back we shall find, that from the Days of *Hippocrates* down to the last Century, several great Men thought these Bones so worthy of their Notice, that
they

they have bestowed much Time in writing on their Diseases. Among this Number we find *Hippocrates*, (1) *Galen*, (2) *Helmont*, (3) *Eustachius*, (4) *Vesalius*, (5) *Columbus*, (6) *Havers*; and many more might be quoted if necessary; who have wrote of them, even from Dentition to their full Growth, &c. therefore I shall not take up your Time in reciting their Anatomical Enquiries, Structure, (7) Analysis or (8) Observations made on a few Teeth, since they have been handled in a masterly Way; but confine myself to some of those principal Indispositions, which they are liable to. It may however be observed, (*en passant*) that each Tooth has a Nerve, Membranes, Ligament and muscular or earous Enclosure, all or any of which are subject like other Parts of the human Fabric, to undergo a Mutation, and be distemper'd like other exsanguious Parts, as Caries and Corrosions sufficiently prove, ——— A Caries of the Teeth may take its Birth or Origin

(1) *Tract. de Ossibus.* (2) *De victus ratione.* (3) *De Dentibus.* (4) *De corpore humano.* B. I. ch. 11. (5) 10th, ch. B. I. (6) *Osteology.* (7) *Papius.* (8) *Bartholine* and *Hippocrates.* Sect. 6th, B. VI. of his *Epidemics.*

from internal Distempers, such as a scorbutic Lymph or the like, which corroding the Gums, forms at first small Ulcers; afterwards the Tooth on its external Part grows foul and softens, and a black Speck is the Prognosis; when this Disease passes unobserved, in Time it eats through its cortical Substance, and by inviting an additional Moisture, the Tooth soon becomes rotten and moulders away piece-meal.

Sugar, Sweet-meats and their whole Tribe are destructive, by Reason of their gross and viscid Particles adhering to the Gums, which daily dissolving by little and little, overmoisten these Bones, and their clammy or viscid Fluids incommode their natural nutritious Juice from secreting in a proper State.

Preparations of Mercury administred either by Uction, or taken inwardly, seem to be the greatest Enemy to the Teeth, since they are capable of insinuating themselves into them by the Subtility of their Parts, and act as an Escharotic from their corrosive Nature, and are consequently injurious to
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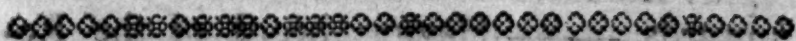
the Nerves, Membranes and Ligaments. --- It seems Mr. Boyle has taken Notice of this, by acquainting us that he found a small Drop of Mercury in the Socket of a Tooth after a mercurial Uction, which was the Occasion of its falling out. --- We daily see that the Effect of a Salivation is the Destruction of these most durable Bones, by first inflaming and distending the Gums, and afterwards leaving them in a lax, flaccid, spongy and broken State. — If then Mercury has such Power on these Bodies, which are the most compact, and remarkable for their durable Texture of all other, what Havock must it make amongst those Bones of a more spongy Nature?

Hot Things are known to be prejudicial to their Substance, by relaxing the Gums and weakning their Nerves, as appears by an old Maxim in the *Schola Salernitana* as well as Experience, viz. *Pultes ferventes faciunt corrumpere Dentes.* It would be almost endless to enumerate the various Substances which are noxious to the Teeth, producing either a depraved Nutrition, Weakness of
 1 their

their Nerves, &c. However let the Disorder arise from whatsoever Cause, we are to inquire into its Origin, since Concretions and Indurations about them from an impure Spittle, or bad Lymph of the Gums, often prove the rise of the Pain and Anguish; the Habit of the Body ought also to be particularly attended to, since Nephritic, Scorbutic, or Arthritic People, &c. are violently seized with this Disorder; therefore we ought first for Relief to remove the Sordes, and commit the Cachectic Body to be corrected by the Physician.

There is one Disorder of the Teeth to be remedied with Ease and Safety, without running to a Tooth-Drawer to pocket so necessary a Bone; and that is, when any of them becomes excavated or hollow; by first cleansing the Cavity of whatever corrupted Substance is lodged in it, and then filling its Hollowness with Wax, *Olibanum*, Mastich or Lead, which will prevent either the cold Air or Aliments from disturbing the Parts for Years afterwards. — Frequently the Teeth become distempered from
small

small Particles or Portions of the Aliment insinuating themselves into the small Cavities of the unsound Tooth, or sticking to it for some Days, which contracting a Putrefaction and foetid Stench, preys upon it more and more, and soon after produceth Vermin, and a Corrosion of the Bone, when a Defluxion of bad *Serum* enters the Parts, irritates their nervous Membranes and excites cruel Anguish.---Such like terrible Disorders in the Teeth are frequently attended with much worse Consequences, if a speedy Stop is not attempted; for when the Sanies of a foul Tooth cannot be discharged, its Socket and Jaw Bone will become foul in a little Time; it is from such like Causes that Inflammations, and Abscesses in these Parts, become so frequent, as the following Pages will sufficiently evince.



The Case of C—d—n C—n.

In the Year 1743, Mr. C---d---n C---n, applied to me some little Time after my Arrival in *Barbados*, for a Disorder he had been troubled with for two or three Years; he had been salivated for it, but without receiving any Advantage; and had applied to almost every one, that he could get recommended to; the foetid Discharge and Snuffling had made the Neighbours believe, that the Disorder proceeded from the Pox; in Consequence of which, he grew obnoxious to his Relations and Friends, insomuch, that they shun'd his Company.

After he pulled out the Plugs of Lint from his Nostrils, there flowed at least a Tea spoonful of a stinking ichorous Matter ; there was a small Cicatrice of a former Abscess opened externally, a little Distance from the right Ala of the Nose ; on examining the Nostrils, I discovered an Ulcer on each Side of the *Septum Nasi*. ———

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He complained of much Pain in his Nose upwards. — Having heard of the Report of his being foul, I put the Question to him, and also asked, whether any of his Family were scrophulous, to all which he positively answered in the Negative. — I bled and purged him three or four Times, which in a few Days alleviated the Pain. — I put him under a Course of Antiscorbuticks, but at the Month's End, we had not got any Advantage of the Distemper; I observed the Discharge was not abated either in Quantity, Complexion, or Scent, and on pressing with my Fingers on the Cheek near the Bones of the Nose, it flowed afresh; I endeavoured to introduce my Probe into each of the Sinuses, believing a foul Bone to be the Cause of the Trouble, but in this Examination, I could not perceive the Bone of the *Maxilla Superior* bare. — I ordered however, one of the *Incisores* to be extracted, and elected that Tooth which was most uneasy; on pressing on the lower Part of the Cheek, the Operation succeeded, and some Matter followed the Tooth; I ordered

dered the other Side of his Jaw to undergo the same Operation, which being performed, the Patient found the Discharge thro' his Nostril decrease for three or four Days, after which the two Ulcers healed, and in a little Time after he recovered his Strength and Spirits. ——— Censure joined with intended ill Nature, is often too heavy a Burthen to withstand, and though Man's Reputation is the most precious Jewel, yet it is capable of losing its Lustre by mistaken Conjectures or poisonous Aspersions; of the Truth of this Observation, the present worthy Person is a living Proof.



Mrs. Gretton's Case.

In 1743, *John Sober*, Esq; of *Barbados*, sent for me to visit his Overseer's Wife. She had long complained of a fleshy Substance in her Mouth, which at Times would discharge large Quantities of Blood, inso-much that partly by the Frights, and partly by Weakness, she miscarried more than once; she had been afflicted with this Dis-

order near two Years, and by the frequent Hæmorrhages was greatly reduced, being very thin, pale and feeble. — The Time I was sent for, she was under one of the Fluxes of Blood, which several Practitioners had been attempting to stop, with various Sorts of styptic Medicines, with which hard Dossils of Lint were either sprinkled or wetted; on removing the Applications, the Blood poured out of the Mouth in a large Stream, it seemed to flow from several Vessels, and having observed the principal, I prest a small Dossil of Lint against it, and confined it down with a Probe, making one of the Assistants hold it. — On examining the Mouth, I found the right Side of the *Maxilla Inferior* overspread with a large fleshy Tumour, and it covered the *Molares* both externally and internally; it extended itself along the Jaw, from the *Incisores* to the condyloid Process; it was in some Parts hard, in others soft and flabby; upon the whole, it seemed to be a fungous Excrecence, and therefore I proposed removing the whole, or as much of it as possible.

possible by Excision.---For a long Time the Operation was objected to, on Account of her Weakness and the Hazard of a Profusion of Blood. But acquainting the several Practitioners, that it was my absolute Opinion, that the whole Disorder proceeded from a Caries of the Bone, and that it was necessary to cut away this luxuriant Flesh, to extract what Teeth were foul, without which it would be impossible to obtain a Cure, they after some Time consented. Therefore with my Knife I dissected inward from the furthestmost Tooth forward, also made another Incision, the same Length on the external Part of the Jaw, on which I removed above two Ounces of the Substance, but left a large Portion behind; this Incision caused but a small Flux of Blood, and the Advantage gained was disengaging the Teeth from the Flesh. One of the *Molares* was extracted, on which the Artery was divided, and a violent Hæmorrhage ensued; I endeavoured to find out its Mouth, but by no Means could restrain the Bleeding, by Applications; I or-

dered the next Tooth to be drawn immediately; which being removed, the Effusion yielded to dry Lint only. ---- Besides I have known several Instances of Hæmorrhages stopt by extracting the next Tooth, when all Styptics, nay even the actual Caутery have failed.

Next Day the *Alveoli* were filled up with spongy Flesh, and I found by my Probe, that the next Tooth was foul, which immediately was extracted, but not without great Persuasions; this I found also diseased, and therefore made a Motion for her to lose a fourth Tooth, but could not get her to comply.

About a Week after I paid her a Visit, found her very chearful and easy, the Excrescence left beyond the *Dentes Molares* was now falling off, but the Jaw appeared too large, and the Gums or Sockets of the removed Teeth were not consolidated, which shewed that the Bone was foul, and therefore I strongly enforced with Arguments, the Necessity of losing another Tooth or two, but herein I was also denied, as she was free from Pain.

I heard no more of my Patient till about fifteen Months after, when I was sent for in great Haste; she was then labouring under a Hæmorrhage from the Part affected, and a new fleshy Substance had sprung up, which was of the Size of a large Walnut, having its Basis from the Sockets of the removed Teeth, which for some Time had incommoded her Tongue; this Excrecence I cut out, and ordered two more of the *Molars* to be extracted, which being performed, and no great Quantity of Blood spilt, I ordered her Mouth to be gargled with Tincture of red Roses, mixt with a little Honey and an eighth Part of *Eaton's* Styp-tic, the Intent of which was not only to digest but also to brace up the Gums, and make them firm, ---- She used this Mouth-Water for some Time, from this she became hearty, recovered her Strength, has brought forth two fine Children, and is now perfectly recovered.——It is to be observed that several small Fragments of the Bone scaled off and came away at Times.

III. *Of a fowl Jaw.*

In the Year 1748, Mrs. *Fernandez* of the Jewish Religion, was brought from *Sarinum* (a Dutch Colony on the wild *Brazils*) in a Sloop belonging to Mr. *John Thomas* of *Barbados*, --- *Faro* Commander; she was recommended to me by the Governor and Merchants of that Province, and afterwards by the most considerable Jews in this Island.

This woman was about forty Years of Age, Mother of several Children, and had been afflicted with a Disorder in her Mouth for some Years, and not meeting with any Relief from the *Dutch* or *Spanish* Surgeons, who declared the Case to be cancerous, she undertook the Voyage to *Barbados* even in the dangerous Time of both the *Spanish* and *French* Wars. The Bones of her Nose and Cheek on the right side were enlarged and inflamed, her Tongue had a very deep putrid Ulcer on its side, and was above one third eat through; the upper Jaw and Palate of
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the Mouth were overspread with a fleshy Substance, which discharged a sanious putrid Ichor, of a foetid Stench almost too much to be withstood; she complained of much Pain, and was reduced almost to a Shadow; she informed me that for the last six Months, all her Sustenance was suck'd in thro' a Quill, not being able to take in any Aliment that requir'd Mastication, nor capable of swallowing any thing solid; in short she could neither speak nor swallow without Pain.

After she had recovered the Fatigue of the Voyage and refresh'd herself for a Week, I set about the Work; first two of the *Molares* (next to the Eye Teeth) were extracted which appear'd rotten, and some small Scales of the sides of their Sockets came with them. I drew out a third and a fourth, then bored thro' the second of the *Alveoli* into the *Antrum Hymorianum*, or *sinus Maxillæ superioris*, from which some Matter flowed; I took away a little Blood from the Arm, ordered a Gargle to be used every four Hours, to which a little of the simple Tincture of Myrrh was

was added; next day she took half an Ounce of Lenitive Electuary to give her a Stool being very costive; the Evening following the Inflammation and Swelling in her Cheek subsided, the Pains abated, but the fungous Flesh kept its State without any very visible Alteration. On examining the Teeth further I had Reason to believe they were all diseased, even to the *Dentes Sapientiæ*, they being very black and jagged; and when I pressed against them with a Spatula, some little Pain ensued, upon which it was proposed to extract them; on her Compliance they were all removed on that side of the upper Jaw, when the lower Edges of the Bone appeared foul. It was from this carious Bone, that the fleshy Tumour which overspread the Jaw and roof of the Mouth took its Rooting; I therefore made an Incision along the Alveoli, and cut off its Fibres, on which the whole Excrecence was removed without any considerable loss of Blood, and in a few Days all her Pains went off, unless that in her Tongue; her Voice altered for the better, and she took
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more Nourishment daily. The Gums firmly closed by the Use of an Astringent Gargle in a little Time, but first several small Portions of the *Os Maxillare* came away; as she regained her Strength, lenient Purges with small Doses of Calomel were taken, a Course of *Æthiops* with a Decoction of the Woods were persisted in for near six Weeks, but without any Advantage on the Ulcer of the Tongue; at this Time it appeared covered with a yellow Slough, discharging a thin foetid Water, which was very irksome to her; sometimes it used to swell and inflame, for which I bled her once or twice, but these Proceedings gave us very little hopes of Success: Sometimes I was suspicious that the Disorder took its Birth from a Venereal Taint, and at other Times from a Scorbutic Habit; however at last examining the lower Jaw on that side of the Mouth which the Ulcer was on, I discovered two Stumps of the *Molares* with their sharp Edges, standing out beyond the Surface of the Gums inwardly; these were drawn and the Cause of all the Trouble was removed;

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for in a Day or two the Tongue threw off a thick Slough, leaving a deep large Ulcer which began to incarn instantly after, and in about ten or twelve Days entirely healed, only with the Use of a common cleansing Gargle.

The Obstinacy of this Ulcer, or more properly, its long Continuance, arose from an Oversight in not before discovering the Asperities or sharp Edges of the two Stumps; and indeed they slip'd my Observation, as they were not to be seen or felt on the superiour Part of the Gums; but their shelly Edges stood inward, which could scarcely be discovered any other Way than by Feeling: I was well satisfied that I found out the Origin at last of the Distemper, being convinced that all the internal Medicines in the World could never have perfected a certain Cure, and I am afraid a Salivation would only have exasperated the Disease; this, tho' a late Discovery of its Rise may be of no small Importance to unexperienced young Surgeons, since every Distemper, when once well understood is nearly cured, or with
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very little Trouble is to be perfected; for a just Prognostic of the Origin of a Disease will reduce the List of those Distempers enrolled among the *Opprobria Medicorum*. It is the Duty of a Surgeon not to undertake a Cure if he cannot find out the Cause, and it is but honest to call in another to assist in such Enquiries; for by such prudent Proceedings, he will not only do Justice to his Patient, but will acquire much Knowledge, and learn to distinguish one Distemper from another, and discern the complicated from the simple, the venereal from the scorbutic, &c.

To conclude, the Patient continued the Use of the detergent Gargle, was purged two or three Times after the Ulcer was cicatrized to lessen the neighbouring swell'd Glands, and in a few Weeks after she returned to *Surinam* with her Mouth in good Order, and was hearty and well in Health, to the Surprise of her Friends and Acquaintance.

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Of an Abscess in the Face.

In the Year 1734, I was sent for to visit a Servant belonging to *William Withers, Esq;* of *Marrydown* near *Basingstoke* in *Hampshire*; the young Man had been under the Care of an Apothecary for several Days for a Fever of the erysipelatous Kind, his Face was greatly inflamed on one Side from the Cheek upwards, and one Eye was quite closed. — A Poultis was applied to the diseased Part, on removing which, I found a Tumour on the *Os Malæ*, extending itself over the *Processus Jugalis*; next Day it was opened and discharged a considerable Quantity of well concocted Matter, and the *Sinus* was dilated in its whole Extent, and drest according to order in such like Cases; it was some considerable Time before the Part healed, notwithstanding he was bled and purged several Times, and a low Diet was observed.

About the Fall of the Leaf in the same Year he was attacked in the same Manner, when I was again sent for, but not till near a Week after the Attack of the Disease. I found him labouring under a violent Inflammatory Fever, his Face and Head swelled prodigiously, delirious between whiles, and complaining of great Pain in his Face and Head; he was immediately let Blood, a Clyster was thrown up, and the diseased Parts were bathed with a Decoction of Elder Flowers. — The next Morning an Abscess shewed itself on the same Cheek as in the Spring, which in the Evening I opened and discharged a Cupful of Matter; soon after his Pains abated and his Fever decreased, he was treated for several Days as one labouring under a common violent erysipelalous Fever. — At the Month's End the Parts again healed, but not without the Assistance of good Purges.

Early in the Spring following he was a third Time attackt with a Pain in his Face. — On his first Complaints I was sent for, I found him in great Anguish, and afflicted

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ted with a Fever ; immediately twelve Ounces of Blood were taken from his Arm, a Clyster was injected, which though it gave him some Stools, yet afforded him no Relief, either as to the Pain or Fever. — On examining more strictly into the Manner in which the Disease seized him, I found the Pain of the Face did not proceed from the Fever, but that this latter was the Consequence of the former, that it encreased as the Parts inflamed, and that the Anguish and Inflammation were the first Symptoms. — In discoursing with him I discovered his Breath to stink very much, which gave me a Suspicion of rotten Teeth. — Being askt whether he was ever seized with a Pain in the Teeth, he replied scarce ever, unless at the Times when his Face had swelled ; on examining his Mouth, I found the second and third of the *Molares* decay'd next to the *Incisores* ; on removing one of which, we had a plentiful Discharge of foetid Matter ; in a few Hours after the Pain ceased, the Fever abated, and from this Time to the Year 1749, which was the

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Time

Time I accidentally met with him, he told me that he had never been troubled with any Pain in his Face or Nose.

In the Year 1748, Mr. *Castilion*, Purser of his Majesty's Ship *Mary Galley*, *Robert Swanton*, Esq; Commander, applied to me for Relief in a Disorder in his Teeth; this Gentleman had been with Lord *Anson*, in his Voyage round *Cape Horn*, &c. and had contracted a violent Scurvy, which being neglected, had seized his Mouth: His Breath was very offensive and most of his Teeth foul and loose; the Gums were full of little Ulcers, from which oozed a fetid Matter. Having cleansed them from the corrosive Sordes, I found two of the *Molares* of the under Jaw rotten, and a *Caries* of the Bone, from which a sanious Matter flowed; as Part of the Bone was loose, and the Teeth appeared irreparable, I proposed removing them, to prevent the Disorder from spreading, and to preserve the other Teeth; since a *Caries* in one Tooth, has often attacked the next, and so on, till the whole Side of

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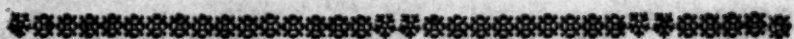
the Jaw is distempered; and therefore this expedient was necessary to stop the spreading Corruption, which might be carried on even to the upper Jaw, by an Admixture of the Humour with the *Saliva*. ---- For the Exulcerations of the Gums, I ordered his Mouth to be washt with red Wine, to half a Pint of which, two Spoonfuls of Tincture of Myrrh compound, and a Tincture of Dragons Blood were added. He continued in this Method for near a Fortnight, when one Morning he came to me with Part of his Jaw, and the two Teeth in his Hand, having removed them himself in the Night as he lay in Bed. From this Time, his offensive Breath mended, and the Remainder of his Teeth with the Gums became sound.

I have in the Introduction to the Diseases of the Teeth, said that Sugar frequently destroys the Teeth of Children; the Truth of which is very manifest in the Sugar Colonies; for the Natives in general have bad Teeth, but more particularly the Children about the Plantations; and we may account

count for this Disease being so rife, from sucking the Sugar Canes daily, from the Beginning of the Crop to its End, and this Practice is annually ; even Children from three Years of Age to grown Persons are fond of chewing this mellifluous Plant.----

I once knew a very extraordinary Case, which was, that almost the whole under Jaw of a Child about six Years of Age grew foul and came off with the Teeth in it; Mr. *Mellows*, who was Father of the young Lady, sent for me some Time after, when I found some of the foul Bones working their Way through several external Openings.

A Daughter of Mr. *John Thomas*, Merchant in *Bridge-Town*, was afflicted with foul Teeth for upwards of a Year; at length I was sent for, when I found Part of her Jaw foul, which after some Time was obliged to be taken away with three of the Teeth in their proper Sockets. It was some Months before the Gums closed and grew firm.



Of a Fractured Jaw.

A Negroe Man belonging to the Honou-
 rable *John Lyte*, Esq; in the Year 1747 re-
 turning to the Plantation from *Bridge-Town*
 with the Waggon, being drunk tumbled out
 forward and fell under the Wheel, which
 run over part of the upper Jaw, and frac-
 tured the lower compleat in two separate
 Places, and also dislocated the right Condyl-
 oid; some of the Teeth were cut off with
 their Sockets inwards, adhering to the Bone
 only in Part. Some Hours after the Acci-
 dent I was sent for, when I found the Case
 as represented, with Part of the Jaw Bone
 in two Places forced thro' the Wounds.
 With some Difficulty I reduced the Disloca-
 tion and the Parts of the Bones fractur'd,
 the Teeth with their Alveoli being first
 reinstated; the Wounds were drest with
 dry Lint and a Digestive; Compresses and a
 proper Bandage secured the injured Bones.
 After the lower Jaw was brought close to
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the upper, the Teeth answering exactly to each other. In the Evening twelve Ounces of Blood were taken away, and next Morning the same Quantity was repeated, to stop a threatening Erysipilas, as well as to prevent any extraordinary Accidents cooling Clysters were injected once a Day, whilst emollient Fomentations were applied to his Jaw and Face, by which Means the Inflammation was asswaged in five or six Days, during which Time his Nourishment was Water Gruel, thin Broths, and the like, all which he suck'd thro' a Quill. At the Week's end, having drest the Wound daily, he could with some trouble open his Mouth so far as to admit me to examine those Teeth which with their Sockets I had reduced; I found them with the Bone loose, and on pressing them he complained of so much Pain as made him desirous of having them taken away, the Gums were greatly inflamed attended with Sloughs and Putrefaction. The Saliva which continually dribbled out of his Mouth was attended with a fetid Stench. A vulnerary Gargle warm was held in his

Mouth almost continually to bring the wounded Gums to Suppuration, which answered the Intent not before ten Days ; as the Wounds penetrated into the Mouth, the Digestion was kept back by the Saliva. The inferior Parts of the fractured Bones in due Time scaled, having a Passage thro' the external Wound ; we had some small Abscesses in the Gums at Times, which afterwards discharged Matter and then healed ; soon after the Spittle became void of Smell, the Wounds healed, and that Part of the Jaw cut partly off with the Teeth rejoined, though not without much Pain and Trouble to the Patient. In about two Months I took my leave, and it was near a Year before he was able to chew his Food ; Nature finish'd the Cure, after having thrown off some small Spirals of the Bone through the Gums inwardly, as well as through the external Wounds.

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Dislocation of the under Jaw.

In the Year 1738, a Servant of Lord *Windsor's* met with an Accident at the *Windmill* Inn at *Salt-Hill*, by attempting to girt the Horse tight, and hawling the Straps by the force of his Teeth, a common Method amongst Grooms and Jockeys, Mr. *H—* a Surgeon of *Eaton* was sent for, who after examining the Case, declared the Man to be seized with a Palfey in the Jaw, or Planet-struck, as the People call'd it. The poor Fellow could not speak to be understood, nor swallow any Wine but with great difficulty, but made a Noise and shook his Head, shewing the Opinion given was wrong; whilst others cried out the Disorder proceeded from Drunkenness; various were the Opinions of all, concerning so sudden a Change in a Man who was perfectly well but a Minute before: As his Disorder was not found out, his Lord ordered him to set out for *Reading*; the Towns he rode thro' were surprized to

see a Man with his Mouth wide open,
 Tongue swell'd, and dribbling and groaning
 as he passed along, and his Face and Head
 enlarged to a great Degree. Being sent for
 to the *Black Bear Inn*, and examining the
 Case, Lord *Windfor* ask'd me if I could find out
 the Man's Disorder; I immediately replied,
 that he had dislocated his Jaws on each side, and
 that they must be reduced, which his Lord-
 ship was pleased to be satisfied with, when I
 assured him the Symptoms and Complaints
 proceeded from a Luxation; I set about the
 Reduction, my Assistant was placed behind
 the Patient, bringing his Hands over his
 Forehead to make a counter Extension,
 whilst with my Thumbs on the hindermost
 Teeth on both sides, I pressed the Jaw
 downwards, and at the same Time pulled
 forward, by which Counter-Actions, the
 Apophyses of the Jaw were restored with a
 little Noise, and some Injury to one of my
 Thumbs. The Servant immediately leap'd
 off the Chair and kneeled down, giving
 me a hundred Blessings in as distinct Words
 as before; I informed him it was dangerous
 to

to talk till the Parts were recovered; some Blood was taken from his Arm, and the next Morning he set out for *Bath*, with his noble Master, having Directions to keep on the Muffler, and to live upon Spoon-meats for a Fortnight at least.



*Of an extraordinary Caries on the
Major Fossils of the Legs.*

The Wife of Mr. *Gibson* a Planter near the *Hole Town* in *Barbados*, laboured under a Disorder in her Legs for upwards of two Years, the Anguish of which had greatly reduced her; so that finding no Relief from the Gentlemen employed, I was sent for in the Year 1744, when I found her in Bed confined by the most excruciating Pains in her Limbs; the Bones did not appear enlarged, nor were their Shape altered, or at least but very little. ----- There were some small Holes in the Integuments, like those eroded in Wood by small Insects, with livid Spots about the Middle of each Leg, on
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the anterior and internal Sides. Through these *Cavernulae* I introduced the Probe and felt the Bone in each Fossil denuded of its *Periosteum*. On withdrawing the Instrument a Drop or two of blackish Blood followed, without Pain, although the Parts gave great Anguish on being felt and examined. By her Discourse I understood that a gentle Ptyalism had been pursued for some Time, as a radical Cure, after which a Course of Alteratives, with the Woods was prescribed. —I enquired whether the Disease might not have taken its rise from either a Blow, Fall, external Injury, venereal Taint, or a scrophulous *Virus*, but could not find that the Patient had ever met with any Accidents of these Kinds, neither had the Relations nor herself any Knowledge of ever having been attacked with any Swellings or Tumours behind the Ears, or in any glandulous Parts of the Body; there were no Vestiges of those Distempers which infest the Lips, lachrymal and nasal Glands, from a strumous Leven, neither had she ever had the Small Pox; we were also pretty

confident that a venereal Taint was an absolute Stranger, as the whole Family and Relations were sober, discreet and virtuous People. — Upon the whole, the Distemper appeared to be scorbutic, and the Prognostics were, a Hollowness of her Eyes, with black and blew Circles around them, which at Times would change to a shady red, offensive Breath with spongy Gums, separating from the Teeth, and bleeding now and then, with little Ulcers, a Complexion of a leaden Colour, and other such like Signs. This Opinion was supported by the Custom and Manner of the Islanders Dieting, who, at least four Days in the Week, feed on *Irish* salt Beef; pickled Fish, as Herrings, Shads, Cod, also Bacon, salt Pork, and such like gross Aliments; nay some of the best Families have such like Food at their Tables every Day, for Weeks and Years together, drest in various Shapes, and heightened with some Species of the Pepper, such as the Bell, Negroe and Bird; indeed most of the Ladies here prefer this Diet, before any Species of Poultry, notwithstanding they

they are served with great Plenty, and as delicate, if not more so, than in any other Parts of the known World.

As the Bones were partly denuded of their Coverings, as appears by the Probe, and there was a Discharge of a thin watery Humour through the Worm-holes, as well as a great Moisture from the Legs, I proposed to lay them bare either by Incision or Caustic, since the Disease was a Caries.

I shall for the Sake of being concise, speak of the Treatment of one Extremity, the Diseases being the same in both.

That excellent Practitioner, Dr. *Joseph Gamble*, who was Uncle to the Lady, being present, consented with the Family to the Operation of the potential Caustery, which was applied on the *Tibia*, the Length of the suspicious Bone, being about an Inch an a half; in six Hours after, I removed the Apparatus, and made an Incision thro' the *Eschar* to the Bone, which appeared yellow, firm and smooth. I dressed up with dry Lint, and a Digestive over it, &c.

Next

Next Day, on removing the Dressings, I applied the Rugine and scraped the Bone considerably deep, without the least appearance of Blood; I should have carried on the Operation further, but my Patient complained of great Pain, not from the Instrument, but the shaking of the Bone, and therefore I dressed up as before.

The following Day I placed her Leg on a Pillow, and had it held by two Assistants: On removing the Dressings the Bone appeared dry, and when the Raspatory was applied, it gave no more Pain than if the Bone was in a State of Mortification, as doubtless great part of it was, as there seemed no Circulation of Juices in it, tho' at this Time I had cut thro' above half of its Substance, down to the *Cancelli medullæ*. The bony Fibres cut off were of a loose and open Texture, and of a preternatural Complexion; the Relations were not a little affrighted, and the Lady much fatigued, which made me desist for the present.—— The Family were deeply concerned, as not having ever heard or seen any Thing of the like

like Nature, and desired I would not cut away any more of the Bone ; I therefore contented myself with dressing it for three or four Days longer with dry Lint and a Digestive, as usual. About this Time I acquainted the good Doctor (who had been absent some Days) of the Necessity of proceeding, and more especially as the violent deep seated Pains continued, as well as that there were but little Hopes of obtaining even a palliative Cure of the Ulcer made, since the Parts never could be brought to heal; by such Reasonings the Patient and Friends were brought to comply.——Having provided myself with a set of Chissels of different Sizes and a Saw, I cut thro' the Bone transversely, on the superior and inferior Parts, to prevent the Instruments slipping, injuring the Flesh, or splitting the Bone; then with the Chissel and a Mallet I cut off the Laminæ, till I got down to the middle Cavity, which contains the Marrow (the Channel) not having all the Time any bloody Appearance: The Operation took up some Time, by Reason that every Stroke

was

was made with great Gentleness, as there was Danger of breaking the Bone, as well as jarring the Marrow, and bringing on an Abscess at least. In Order to separate the un-sound Parts from the sound, I carried the Operation on further, by rasping or paring away the Edges of the bony Cavity, till such Time as the Blood Vessels appeared, for I was afraid the Tibia was gangren'd through its whole Structure; but after three or four Incisions, I was agreeably affected with the Appearance of Blood. ———

The Channel of the Marrow being obstructed by the Bone pressing inward and almost filling up its Cavity, doubtless was the Cause of the violent Pain, with which the Patient was afflicted; for to use her own Words---*the Anguish was in the Heart of the Bone.* The Blood Vessels also being compressed, and the circulating Fluid interrupted in its Course, did not a little contribute to the Disorder; the Reasonableness of these Conjectures carries some Weight, since the Complaints ceas'd on the Cause of the Caries being removed.

What Denomination can this extraordinary Malignity of the Bone be characterised with ; may it be called an inward *Exostosis*, a dry *Caries*, *Sphacelus*, or what ? If I could be certain of its Origin, probably it might be distinguished by a proper Appellation --- I shall attempt some of the many Causes of Diseases in the Bones, and leave the point to be discussed by those who have had greater Experience and Observations. And first, certainly Distempers in the Bones do not arise from themselves, but from the Fluids that pass through them, or flow from their Vessels and Contents ; for whenever the free Passage of the Fluids through the Canals of the *Periosteum* into the Bone is hindered, or their return from the Bone to the *Periosteum* obstructed, Disorders will be produced in the Bones, though the immediate and primary Causes of such Distempers are not lodged in the Substance of the Bone, but in the *Periosteum* only ; we are obliged to *Rusych*, for the Knowledge of such Vessels being detached to the Bone from the *Periosteum*, they being before him

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considered only as Fibres, as Dr. *Clopton Havers* has ranked them. ----- A Corruption of the medullary Oil is another Cause, by stagnating in its proper Vessels, or in the Interstices of the Bone. Also a Distemper of the inward *Peristoeum*, since it, like the external, has Vessels, and is subject to Obstructions and Inflammations; and the *Laminae*, which constitute the Bones, may be distempered by a Disease in the Membrane distributed through their Interstices; these and some other, no doubt are the Causes of such like Maladies. But to proceed, notwithstanding what has been directed by variety of Authors for dressing carious Bones, I only applied the grand Absorbent, *dry Lint*, and a Digestive over the carious Integuments, yet in four or five Days some small Grains of Flesh appeared from the Edges of the Bone, which encreased daily, and the Wound was dressed like those where Nature is to perfect the Work, except that some Care was taken to prevent the fleshy Lips from growing luxuriant by keeping them within Limits, with Pledgets express out of *Sp.*

Vin. rect. In or about ten Weeks she walkt about the Chamber, and in six or seven Months grew well; since which she has been several Times pregnant, and brought into the World two fine Children, and at this Time is become a jolly, comely Woman, from one of a thin, slender, shadow-like Person.

CONSIDERATIONS.

There are few Diseases in the animal Machine, that have had so many and various Medicines invented for their Cure, as a Caries or Rottenness of the Bones, as appears from the Writings of the most eminent Men down to this Time, which must certainly puzzle most of us, who are not vested with publick Places: A succinct Recital of what has been advanced may not be improper in this Chapter, for the Consideration of my younger Brothers. — And first, amongst the Greek Writers, *Galen's* Knowledge of *Hippocrates's* Meaning, and *Celsus's* Method of Practice are to be preferred; whilst *Dioscorides's*

rides's Powder of Roots or Juice of *Euphorbium*, and *Paulus Aegineta's* Formula of wild Poppy and Fig-tree Leaves, Barley-flour, with Wine made into a Cataplasm, are wholly to be discarded.

These and such like Compositions were in vogue till the *Arabians* came on the Stage, who at first also used drying Powders, till *Albucaſis* and *Avicenna* advanced into Practice, when they revived the Method of *Celſus*, by burning and rasping the Parts diseased, which had been laid aside, from the last *Æra* of the Greek Physicians.

The 14th and 15th Century supported this last Method with this Difference only ; that after cauterising the Bone, Oil and unctuous Medicines were applied. It was about the 16th Century, when this tolerably good Practice was poisoned by chymical Doctrines, and forced out of Doors. *Angelus Bolomius* tells us, that the Water by which Gold is separated from Silver, (*Aqua Fortis* I suppose was the Secret) kindled Brimstone and the like was used for a Caries, and *Joannes de Vigo's* Applications were

Oil of Vitriol, *Aqua regia*, burnt Vitriol, with *Aqua Vitæ*, and some others, which liquid Cauterizers were in Opposition to the actual Caution.

Vesalius and *Fallopian* directed Oil of Sulphur, Oil of *Euphorbium*, after which they cooled the Bone with Rose Water, beat up with the White of an Egg, doubtless made from the white Rose.

Ambrose Paré now struts forth with his absorbent simple Powders, no less efficacious for Bones, than his Sea Devils and other Monsters; however he very justly condemns the Use of Oils when the Bone is naked.

About the seventeenth Century, *Fabricius ab Aquapendente*, *Gulielmus Fabricius Hildanus*, *Marcus Aurelius Severinus*, *Nicolaus Tulpius*, and many others followed this chimerical and bigoted Tribe; their Applications were such as *Aqua Vitæ*, Juice of Leeks and Salt, Tinctures of *Euphorbium*, Oil of *Euphorbium*, aromatic and essential Oils, and at the latter End of this Century, Oil of Cinnamon with Oil of Sublimate, Salt of Tartar, Spirit of *Sal Armoniac*, Oil of Sulphur,

Sulphur, Vitriol, and all ardent Spirits, were the darling Favourites of their Followers.

It was not till about 1680, that trepanning, perforating, actual and potential cauterising, recovered their primitive State, being the original Practice of that excellent Practitioner *Celsus*, as the Writings of *Sculletus*, *Wiseman*, &c. inform us; but even at this Time they could not wholly forget the Use of Chymicals, nor were these Medicines only applied when there was a Caries of the Bone, but also to those Bones which were laid bare; it being a Maxim, that all such must be exfoliated; and truly no small Pains were taken to keep the Wounds open and their Lips distended, till such Time as it was perfected: *Felix Wurtz*, *Cæsar Magatus*, and after them *Bellost* seem to differ from this wild Notion; and therefore to prevent an Exfoliation, when there was a large Portion of the Bone laid bare, they directed it to be perforated in several Places, as deep as the Diploe, that small Granulations of Flesh might shoot forth to cover

it, and hinder such from scaling. From this short Sketch of the Method employed by the Ancients to exfoliate Bones, whether carious or otherwise, we may see in what an uncertain State the Art of Surgery travelled down to us, as to this Branch of it. Therefore let us now consider, whether there is a Necessity for such Operations, and distinguish those, which must undergo it, from such as forbid the Performance; since in many Cases it is of great moment, whilst in others it must be prevented.

Those that demand an Exfoliation, without which we must never expect to perfect a Cure, may be reduced to the following, *viz.* Carious Ulcers proceeding from all Sores in the Legs, Jaws, compound Fractures, some Species of Gun-shot Wounds, Stumps after Amputation, and all rotten Bones of whatever Denomination, whether as moist, dry, gangrenous, carious, worm-eaten, or phagedenic. There are also others which demand a Removal of their Substance, or some of their *Laminae*, such as Exostoses arising from a venereal Taint,

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scorbutic Habit or scrophulous Disorder ; and sometimes the rickety and cancerous will admit of the Operation. As to the various Methods of treating such Bones, they differ according to their Circumstances, Conditions and Situations, since some demand either drying or humecting Medicines, others the actual Cautery, and others the Saw or Knife, for effectually removing them.

Bones that ought not to be exfoliated are those which appear in Sight, on the opening of Abscesses, if they look white and even, and if the Matter has not lain long, as also in Wounds of the Head, or after Scalping for the Discovery of Fissures, &c. and lastly, it is unnecessary in all incis'd or lacerated Wounds that are by Accident or otherwise immediately inflicted.

The Heads and Extremities of the larger Fossils, also the Tarsal and Carpal, as well as others of a spongy Nature, by no means must be attempted, when they are denuded by external Injuries.

Having laid aside the ancient (1) testaceous absorbent Powders, and those of an acrid and aromatic Nature, (2) also burning Spirits, caustic Tinctures, (3) essential Oils, common greasy Medicines, either with or without Gums, Resins, &c. Likewise (4) natural Salts, (5) Fossil Acids, (6) alkaline Salts, and the rest of the Tribe, we may confine the Cure of all carious Bones to Rasping, Chisseling and Cauterising, since those of a more mild Disposition will naturally scale off as the *Virus* decreases, which first afforded Matter for their Ruin; and as to perforating sound Bones so much extoll'd heretofore, it is highly to be condemn'd as a bad and pernicious Practice; For the Business of the Operator is only to remove all carious Parts, and bring them to Separation safely, and with all convenient Expedition. In executing this Design, we are to treat them like Diseases incident to the softer Parts, since their Compositions

(1) Crabs Claws, Eyes, &c. (2) Birth-worth, Aloes, Myrrh, &c. (3) Oil of Cloves, &c. (4) Allum, Nitre, Vitriol. (5) Oil of Sulphur, Vitriol. (6) Sal Armoniac, Hartshorn, Tartar.

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have a great Analogy with them, and differ only in Solidity and Cohesion in Texture, as the Observations and Experiments made by the * Judicious, have fully proved ; for in their Origin, they are (1) soft, and in the State of Membranes and Cartilages, and when they are full grown, they are to be unravelled by Maceration and the like; on Comparifon, they appear to have a great Similitude with fofter Organs, and the fame Principles are found in them by a chymical Analyfis, confequently their Difeaſes muſt be ſimilar. Theſe Truths are ſtill further ſtrengthened, by the ſmall Granulations of Fleſh, which at firſt appear out of the Bones after Fractures, and the like. Afterwards theſe become more denſe or cartilaginous, and then terminate in bony Spirals. That celebrated Writer (2) *Petit* tells us, that he has often obſerved a ſimilar Degeneration of the Bones into a ſoft and fleſhy Subſtance ; and there are other undoubted Facts, that by Reaſon of Difeaſes,

* *Clapton, Havers, Ruysſh, Monro.* (1) *Malpighi Obſervations.* (2) *Traite des maladies de Os, lib. I. ch. iv.*

prove that the Bones have been so changed, as, by gradually losing their Solidity, to acquire the softness of Flesh.

To conclude, when Cases like this of my Patient happen, they deserve more than Pity, because they are difficult to be known before it is too late to prevent the Mischief, as the Disorder is seated in the middle Cavity of the Bone, and probably arises from the corrupted Medullary Oil, and therefore it is only now to be removed by cutting out the Bone, and pursuing * *Celsus's* Method, who is very pathetic on this Subject, and with whose Words I shall finish this Chapter, viz.

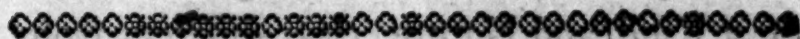
“ We must first lay open the Ulcer, and
 “ render the Bone bare; and if the Disorder of the Bone is broader then the Ulcer,
 “ an Incision is to be made in the Flesh,
 “ sufficient to lay the affected part of the
 “ Bone bare: Then the actual Cautery is to
 “ be once or twice applied, or the Part is to
 “ be scraped till the Discharge of some
 “ Blood is made, which is a sign of a sound

* Lib. 8. ch. ii.

“ Bone;

“ Bone; for the part disorder’d must necessarily be dry.”

As the actual Caутery has for Years past been the Practice in our Hospitals; I could wish the Chissel could be prefer’d, it being a more expeditious and certain Method, and does not carry with it either the Terror or Danger of injuring that Part which is sound, since on Incision the healthy Texture is discovered by the Appearance of Blood.



Of the Gout.

In my Essay on the *Cause* and *Seat* of the Gout, which was publish’d in the Beginning of the Year 1743, tho’ wrote at least five Years before, I attempted to investigate that painful, frequent and inveterate Distemper; and for the Palliation of so obstinate a Disease, I propos’d three external Operations, Bleeding, warm Bathing, and Fontanels between the *Gastrocnemii* Muscles, which I call’d *Poplitean Issues*: I there shew’d that the several

Authors

Authors who had wrote on this Subject, had not agreed as to the Cause of this severe Malady, and consequently could not prescribe a Remedy or Method of Cure, as not knowing from what part of the Animal Machine the Gouty Matter takes its Origin. The Writers on this Subject whom I examined were *Ambrose Pare*, *Ætius*, *Dr. Willis*, *Cheyne*, *Boerhaave*, *Havers*, and *Dr. Lister*; the Substance of whose Opinions I shall here in a very concise Manner rehearse. And first *Pare* says the Humour causing the Gout is of a Kind and Nature clear different from that which causeth either of the four general Tumours, and that it is secreted either from the Brain or *Liver*; thus much of this Galenist. *Ætius* tells us, the Gout never cometh to Suppuration like other Humours, not for that, as I think, because it happens in bloodless Parts, but through the Occasion of some occult Malignity.——The late ingenious and learned *Dr. Willis* informs us, that the Gout is produced by an *Acid*, thrown from the Nerves, and a *fixed Salt in the Blood*, from the Congress of which he
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supposes there arises a Fermentation; but this mysterious and unintelligible Method seems to have little Foundation, since we are not certain that the Nerves are even hollow Tubes, or that they contain any Fluid: Neither is it probable that they should secrete an Acid, which in its own Nature must prove pernicious to the Animal Structure; for it would tear to Pieces the nervous Membranes, nay like some other Acids, destroy its own proper Vessels; as to a fixed Salt in the Blood, I think it has been proved, that no such Salt exists in the Circulation. This is sufficiently shewn by Signior Michell Pinelli, in a Dissertation he communicated to the Royal Society in the Year 1728. *vide Philosoph. Trans. abridged*, Vol. VI. page 116.

Dr. Cheyne would have us believe, that the Gout proceeds from a Viscidity of the Blood, by which its Circulation is retarded, whence Obstructions in the Vessels ensuing, cause that Pain which arises from the Inflammation of the *Periosteum*, Tendons, Membranes, &c. But this Hypothesis I think is to be overthrown, because so far is it from being true
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in Fact, that the Blood Vessels are filled with the gouty Matter, that the Tophi or gouty Chalk Stones, of which this Distemper is too often productive, are never found in those Vessels, but always in the Interstices of the Muscles, Tendons and lubricating Glands.

Dr. Boerhaave observes, that Men who are too much addicted to Acids seldom escape this Distemper; that all Errors committed in the *Non-Naturals* are apt to hasten the Mode, and that the proximate Cause of this Disease is a vitiated Temperament of the smallest, and consequently nervous Vessels in the Body, and also of the *Liquid which waters those nervous Parts*. I think with great Truth, this eminent Writer has given us a strong Idea of the Fluid, which forms the gouty Matter; for by the word *Liquid, which waters the nervous Parts*, he must mean the Oil contain'd in the Capsulæ of the universal lubricating Membrane, which moistens even the minutest Fibres in the Body; also the oily Vessels of the Joints, Ligaments, and Tendons (the very Residence

of the Gout) for what other Fluid can be hinted at by him, when he says in Aphorism 1262, *quod nervosas partes alluit*. The Word *alluit*, signifies to *besmear*, and therefore it carries the Sense of the Author right, since besmearing implies most properly, those Things of an unctuous or lubricating Nature which anoint the Parts, and make their Friction easy; and hence by the Word Nerve, he means the Tendons and Ligaments, since all skillful Anatomists allow them to be *nervous*.

The last Author is Dr. *Lister*, who speaks very plain on this Head; for says he, “ in
 “ gouty Habits the Organs destined to se-
 “ parate the mucilaginous Humour in the
 “ Joints, being relaxed by some Error or
 “ other, especially in Diet, by the frequent
 “ drinking of too much Wine, by Glut-
 “ tony and Idleness, that naturally *smooth*
 “ and *oily Humour* is turned into a crude
 “ and viscid *Serum*, which stagnating in
 “ the excretory Ducts of the Joints, easily
 “ contracts a Putridness and Acrimo-
 “ ny, and at last becomes ichorous and
 “ cor-

“corrosive, whence proceed violent Pain,
 “and the other usual Symptoms that at-
 “tend gouty Persons.”

That the Seat of the Gout is in this lubricating mucilaginous Oil I think is not to be disputed, since the Parts laid open have always proved the Truth of this Assertion; and it is equally true, that the oily Parts are more subject to undergo a Change than any others, since almost every Surgeon knows that Abscesses in general, are not from a Suppuration of the fleshy Parts, but from the lubricating Membranes, and their be-smearing Contents. Besides, all cellular Parts, let them be ever so nervous, as those in the *Pleura*, &c. are subject to Abscesses, and consequently by Obstructions, or undergoing a Change, are productive of a Fit of the Gout. — The great Toe, Foot, Knee, Shoulder, Elbow and those Parts, wherever there is a Plenty of Tendons, are the Places generally attacked with this Disease, and why? because the lubricating Glands here are very large, and also the Tendons are in Sheaths composed of Membranes lined

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ed with oily Vessels, which are cold in Nature, weak in Conformation, and far distant from the first Mover the Heart.

The Difficulty we labour under is a Want of the Knowledge of that Fluid which causeth such Changes in the oily Vessels, by mixing with it, and producing Coagulums; For the Fineness and incomparable Smoothness of this Oil, designed for the Uses aforesaid, shews it to be one of the lightest of all others, and therefore more readily secreted, and liable to undergo a Distemperature, abounding with too much of some other Juices, which ought only to be but small in its compounding Parts. The Blood and all the Juices are formed of various Mixtures, and doubtless whenever they are loaded with too great a Quantity of any one Sort, they cannot be called healthy. This Oil may likewise undergo a Change of its Nature, by being mixt with what does not properly belong to its natural Composition, which is conveyed to it at the Time of Secretion; when therefore these Things are discovered, we shall all understand the

Nature of the Gout, and shall be able to give a more certain Relief, than what has been offered for Ages past.

However, as no one would willingly continue longer in Pain, than Necessity obliged him, I proposed to palliate the Distemper, and to alleviate the Pains in an Attack; and certainly for this Intent there is no one Operation so advantageous, as that of warm bathing, or universal Immersion, which is safe, pleasant and certain, free from all Danger, and more especially that of repelling; for I have known it not only give Ease by relaxing the tense Integuments, but also procure through the whole Machine an universal Sweating, immediately after which, Relief, and a Mitigation of Pain, were the Events. Is it not strange, that this wholesome Practice is not followed more strictly, since Inflammations of almost all Kinds are treated by every Surgeon with emollient liquid Bathing, which is not only the present Practice, but has been handed down to us from the earliest Time. Certainly the Ancients would not have been at the ex-
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travagant Expences of erecting so many *Hypocausta*, had they not been sensible of the Advantages of hot Bathing. We find also, that they had their *Vaporarium*, *Caldarium* and *Tepidarium* to relieve Pains in their Limbs, Surfeits and the *Sciatica*; and truly the original Use of the *Bath Waters* in *Somersetshire*, as well as those in all other Nations, was for bathing only. It is evident, that *Bath* once could exhibit a Forest of Crutches, suspended in their Rooms, left there as no longer useful to the Patients, but as Monuments of Benefits received from this salutary Practice; what! does the Disuse of warm Bathing, shew us to be wiser than the *Greeks* or *Romans*, or more vain and foolish? or have we forgot that this pleasant Custom will remove Pains arising from a Stoppage of insensible Perspiration, refresh the animal Spirits, relieve the Stiffness of the Muscles, attenuate the Fluids, open Obstructions in general, relieve the arthritic, paralytic, and all afflicted with chronical Diseases; I think the several Instances of Patients recovering in the Small

Pox by bathing in warm Water, when the Pock has disappeared with a subsiding of the Swelling and afterwards the Pustules repullulating and going on to obtain a due Maturation, are sufficient Reasons and Ground-works for us to revive this Practice.

Those groundless Frights of warm Water repelling the Gout to the Stomach, Bowels, and Head, are merely conjectural and false in their own Natures; and I do assert and will maintain, that whoever advances such reasoning, must be stupid, willful, ignorant and obstinate, as well as an Enemy to Mankind in general.

Again, as the Gout may spring originally from an Accumulation of offensive Bodies taken in, surely when the usual Outlets are not sufficient to discharge such Redundances, we ought to assist Nature by opening an artificial Sluice; and therefore I would recommend my Species of *Issue*, called the *Poplitean*; as it is to be preferred before either of those usually placed in the Arm, Neck, Thighs, Legs, or between the Shoulders; because the Interstice of the *Gastro-*

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trocnemii Muscles is the largest, and not only so, but it is the most proper Place, because all Fluids will more readily descend there by their Gravitation, and consequently a depending Part must be most advantageous and beneficial.

If Issues had not by Experience been proved healthful, we should not have had them so strongly recommended by so many Writers, even from so early Times as *Ætius* down to *Riverius*, *Spigelius*, *Thomas Erastus*, *Joannes Riolanus* and *Matthæus Glandorp*, &c. However, I think these great Men's Opinions are much to be strengthened by our own Observations; since Numbers of Instances even I could recite in my own Practice, where the afflicted Arthritic has reaped the Benefit of these Issues: And I can safely assert, that most Gentlemen, by keeping open these Sluices, have frequently mist one of their annual Paroxysms, whilst others have had their Returns but slight in Comparison of what they suffered before. — I am certain, that this Operation will be thought of too great Importance to be longer neg-

lected ; and the Place I have pitched on in my Essay on this Distemper, will be found the only Part for it to be performed in ; for the Discharge from these Issues in one Day, will be much more than can be evacuated in a Week by any others. I speak this from long Experience ; and in the Course of my last seven Years Practice, I have made these Drains in above a hundred Persons, with great Advantage to them, and no less Reputation to myself : However if neither Issues are salutary after a Paroxysm of the Gout to discharge the Fluids, nor warm bathing be beneficial in the Height of the Distemper ; it is the Duty of some one or other to contradict this Practice, and urge his Objections to these Methods ; since I must declare, that I don't know one single material Disadvantage in persisting in such Treatment ; nor have I ever in my Life met with any Inconveniencies arising from either. — I confess that Issues are not always advantageous, but this is owing to their not being rightly made.

As Issues act in two most advantageous Methods, they must be salutary ; for they not only throw off and despumate all incumbent Matter, but also will prevent and intercept the future Influx of noxious Humours, two Circumstances that demand the Notice of the ablest modern Writers, since the Ancients have directed their Use as necessary Aids in the following Diseases, after all other Remedies have proved abortive ; *viz.* Asthmas, Phthises, Empyemas, Rheumatisms, Gouts, Scurvies, Leprosies, and all chronical Diseases. ——— However, to pass over, for the present, so obvious a Truth, and as such Issues want no Recommendation, I shall offer a Word or two on the Observations I have made on those, with whom I have been concerned, and conclude with a Case on the Subject.

Arthritic Disorders on the first Attack are generally ushered in with Pains in the Stomach, Anxieties, Nauseas and Loss of Appetite ; during the Paroxysm, the Patient is very costive, afflicted with Borborigmas ; and his Skin is hot and dry ; on the Abate-

ment of the Disease, the Skin in most Patients is loose, flaccid, and afterwards yellow; there are many other Symptoms, but these are sufficient, to deduce the Origin of the Distemper from, and shew us that Evacuations are necessary, provided they are managed without Danger of raising tumultuous Commotions in the animal Oeconomy, since at the same Time they correct the Humours or Fluids, which have the greatest Share in producing this Malady. — After I had considered on these general Symptoms for several Years, and spent much Time in discovering the Cause of the Gout, and making proper Observations, I found out several efficacious Methods, which I now forbear to mention, on no other Account, than that Subjects of this Nature belong to the Province of Physicians. I shall therefore proceed to the Case before hinted at.

N——, W—— x Esq; of the Island of *Barbados*, aged about fifty four, had been grievously afflicted with the Gout for several Years, in the Hands, Elbows, Knees and Feet.

Feet. The Disease attacked him usually twice a Year, and sometimes oftner, and each Fit generally continued a Month, and oftner two, with excruciating Pains; he was scarcely two Months, or little more in a Year without his Crutches, at a Time. In the Year 1743, I made him a Poplitæan Issue in each Leg, which he kept open for about four Years, during which Time every Fit of the Gout was of a shorter Duration, less painful, and succeeded by greater Strength in his Limbs; while the Paroxysms lasted, he made use of the Semicupium for his Feet and Knees, and his Hands were bathed with warm Water.--- Much about the end of the fourth Year, he became careless of the Issues, and one or both heal'd up. It was not above five or six Months after, when he was seized with this Disease as severely as formerly, which confined him near three Months, and he continued a long Time lame and disabled from moving without Crutches: On his recovery, the Fontanels were again open'd; and though he continued them, yet scarce

a Season came about without his being af-fail'd, but each Attack was more moderate, than when the Issues were heal'd.

The Beginning of *August* 1749, he arrived in *London* very hearty and well, and the *November* following visited *Bath*, where he enjoyed so perfect a State of Health, that he frequently took the Diversion of Hunting, which to him was a very unusual Exercise; in *December* he returned to Town, and continued very chearful and healthy till about the latter end of *February*, at which Time he was seiz'd on a sudden with gouty Pains in the Hands and lower Extremities, which encreas'd so quickly, that before a Coach could be call'd to the House where he was, he was incapable of moving his Limbs, thro' the great Pain and Swelling. This Affair happened at Mr. *Smith's* by the *Artillery Ground*, about eight at Night; after some Difficulty, he was put into the Coach, and carried to my House; he had no Sleep all that Night, made Water but seldom, and in small Quantities; his Gouty Pains next Morning were almost too much for his Strength, and as he

he exprest himself, he was fuller of the Gouty Matter than ever before; he was attended with most of the Symptoms before described, with frequent Eructations. He prest me to assist him, as his Anguish was greater than he could describe; accordingly I gave him a Medicine, which I had calculated for correcting those Juices, which I had for a long Time been convinced were the rise of the Gout, that is, a Distemper proceeding from themselves. It took Place, gently operated by Stool and Urine, without disturbing the Habit to any considerable Degree. The third Day it was repeated, and a few Days after he was removed in a Coach to his Son-in-laws, in *Norfolk Street* in the *Strand*, when the Medicine was repeated, and a Week after he walk'd about the Town as well as ever. This Gentleman and his Friends have often declared that this Attack was by far the greatest, the Pains most severe, and the Swelling on the Joints most enlarged, that the Mode was the shortest, and his Limbs left almost without any Weakness; whereas
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in almost all his Fits before this, he was oblig'd to wear the Crutches for several Weeks after every Mode of this Distemper.

In the Month of *March* he was attack'd in a slight Manner again, but the Disorder was remov'd in four Days, by his taking the Medicine twice. A few Months after he embarked for *Barbados*, absolutely free from every Arthritic Symptom, and for what I can learn continues so still.



Of Ulcers.

What we are to understand by the Word Ulcer, is a Solution of the soft Parts of our Bodies, together with the Skin, produced either by some internal Cause, or by Wounds and Contusions becoming inveterate.

Galen Defines an Ulcer to be an inveterate Erosion of the soft Parts, which prevents them from Consolidation; and it is observed that they arise from a Solution of
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Continuity, or a Destruction of the due Texture of the Parts, sometimes spontaneous, and at other Times arising from Wounds and Abscesses, either totally neglected, or ill managed. These Disorders may happen in any soft Parts of our Body, often internally, as in the Lungs, Liver, Palate, Fauces, Womb, Bladder, Bowels, &c. or externally, as in the Parotid, the Axillary, Mamillary, Inguinal, and in all or any of the Glands, as also in the more soft Parts, as the Skin, Fat, and Flesh, as in the Arms, Sides, Belly, Thighs, Legs and Anus: As for those arising from Wounds inflicted, Burns, Contusions and Abscesses, I think, as they differ in all Circumstances from real Ulcers, they ought not to be ranked in the same Class, because they are only the Effects of a former Cause; whereas Ulcers, properly Speaking, are Disorders *sui Generis*, and arise from some Indisposition of the Body, as from an Obstruction of the Menstrues, Dropsy, *Lues Venerea*, Small Pox, Evil, Cancer, Scurvy, Plague, and the like; and according to their Complexion and Malignity, they

they have taken their various Names. Thus if the Discharge is a Bloody Water, it is called, an *Ichorous* or *Sanious Ulcer*;

Viscid stinking
Matter,

} *Sordid* or *putrid*;

A thin Pus,

Purulent;

With a Fungus,

Hypersarcofis;

Lips hard and like
Seams,

} *Callous*;

Hollow with Meanders, *Sinuous*;

When with knotted
Veins, &c.

} *Varicous*;

Obdurate and dry
and of long Conti-
nuance,

} *Annual*;

A black Discharge,
and the Bone bare,

} *Carious*;

There are also several
Species in the *West*
Indies,

} *Verminous*;

In our Attempts to cure any Species of these Ulcers, the first Step is to find out the internal Disease, that the Blood may be cleansed from such Impurities as produce it; and here we must call to our Aid, the Pharma-

ma-

maceutic Part of Surgery, without which all topical Applications will not answer the Intent, but will be no more than if we should make an Effort to drain a Pond of Water, before the Springs which supply it are either stop'd up, or turn'd another Way; besides, if we should get such Ulcers to heal, it is dangerous on Account of the Humours being suppress'd and thrown back into the Mass of Blood, the consequence of which, like other Poisons, may in Time produce either an Asthma, an Epilepsy, a Vertigo, an Erysipilas, Blindness, and other terrible Disorders; but even if neither of these should fall out, the Patient's Life may be cut off suddenly. —

It has happened in robust Constitutions, that after the Ulcer has conglutinated, the Patient has become unhealthy, till such Time as that great Physician *Nature* has forced the Ulcer open again, or despumated and thrown off the noxious Humour by a kindly *Diarrhœa*.

Having found out the Origin of the Disease, and to what Class it belongs, we are
next

next to consider on the topical Medicines to assist us herein, and in this Point the Ulcer is to be treated in respect to its Appearance. ——— If it is attended with a sanguinous, purulent or putrid Discharge, it must be brought to Digestion; if varicous and the Cure is retarded by the frequent Discharges of Blood, the Vein may be taken up or stopt by some other means; in the carious Ulcer the Bones are to be removed; Callous Ulcers are to be softened; Hyper-farcoses, to be destroyed; the Sinuous are to be opened; the Verminous are cured by extracting the Worms or destroying the Animalculæ, and the Cancerous are to be handled very gently, and by the softest Applications.

These are the various Intentions of Cure in external Ulcers; and as the Legs are most subject to these terrible Disorders, I shall confine my Subject to them principally, since these northern Climes are most infested with them, and since they particularly attack the fair Sex; and though it has been said by eminent Surgeons, that the Cure of

some annual Ulcers is dangerous, yet I think by the Precautions laid down, all and every one of them may be healed without risking any Hazard of impairing the Constitution, or any Danger of Life. The Reasons alledged against curing this painful Disorder, in Persons far advanced in Years, and in a very bad habit of Body, are, that the Ulcers act the Part of Issues or Outlets, through which Nature expels the noxious and superfluous Humours. ——— Such Reasons appear to me, as so many trifling Excuses in Surgeons, for not curing those who have been under their Care for three or four Years, and sometimes longer, when at last they are left nearly in as good a State as at the Beginning.

It is certain that there are few Distempers which infest the human Fabric, more difficult to be cured *safely*; but still I am confident, that most bad Habits of Body are to be repaired and alter'd for the better; as to alleviating the Pains, asswaging the Rage, and stopping its Progress; these are not sufficient for the Maintenance of our

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Repu-

Reputation, since by the Anguish *chiefly*, the afflicted have often been wasted to a Shadow, or fallen into some other Distempers; besides, these Ulcers by continuing a long series of Time, bring on Nauseas, Feebleness, Decay of Nature, a Corruption of the Parts, which often terminate in Death itself, all which are to be remedied by internal Medicines, and topical Applications, as the Instances I shall afterwards recite may convince us.

As I have had an Opportunity of visiting several Patients under Disorders of this Kind, and those more particularly of the Fair Sex, who are principally infested with them; I shall briefly recite their own Description of their Complaints, on the first Appearance of these Ulcers in the Legs.

In general their Disorder begins with an Itching in the Part, which they scratch, and by this Means a small Pimple is produced, which at first ouzes out a Sort of Water, from an Orifice often no bigger than a Pin's Head; afterwards festering, spreads itself more or less, with a black or blew Circles round.

round. Then the good Housewife or Doctress is to cure this simple Disorder as it is called, which she Attempts perhaps for a Month or more ineffectually. About this Time, the Leg inflames, swells, grows hot, and produces a gentle Fever; the Sleep is broke, the Appetite weakened, and the Patient becomes a Burden to herself, and every Body about her; soon after she falls into a Chlorosis, when the Pains grow so excruciating that she cannot keep her Bed at Night; the Ulcer now grows deep, and appears with a yellow Sordes, and between whiles with spongy or fungous Flesh. The Pain shooting and pricking inwards, as if the Bone was diseased, a lameness ensues, which confines the afflicted to her Room, from which the whole train of Indolence, Lassitude, Indigestion, and Wastings of the Body begins. These are the principal Symptoms, attending those who are not past the Meridian of Life. ——— And here it is necessary also to observe, that Widows as well as those far advanc'd in Years, are subject to violent Ulcers after their natural healthy Evacua-

tions are gone off, at their accustomed Periods. This is likewise to be remedied by cleansing the Blood from whatever is left behind, through want of purging. After these Discharges have ceased, as Nature is deprived of such seasonable Evacuations, a Plethora ensues, by removing which the Disorder is conquer'd, and the Leg almost naturally heals.

As these Ulcers generally (when the Surgeon is called in) are foul, and discharge a putrid fetid Ichor with or without callous Lips, there is little more to be done till Internals have taken place, than to treat them with Stupes of the softest emollient Kind, to cherish the Parts, thin the Juices, breath forth the Matter lodged, relax the hardened Lips, observing that neither Wormwood, Centaury, St. John's-wort, though ever so highly extolled by Writers, are to have any Share in their Compositions; neither must the callous Lips be touched with the Knife, Lapis Infernalis, Lunar Caustic, or any Escharotick, since they will naturally be reduc'd, as soon as the Malignity is discharged from the Habit.

I cannot say that my Practice agrees with that of Mr. *Sharp*; where he informs us in his Introduction, Page xxxi; “ that to digest the
 “ Ulcer, or to procure good Matter from it
 “ when in a putrid State, there are an infinity of Ointments invented; but the
 “ *Basilicon flavum* alone, or softened down
 “ sometimes with Turpentine, and sometimes mixt up with different Proportions
 “ of red Precipitate, seem to serve the Purposes of bringing an Ulcer to Cicatrification
 “ as well as any of the others.

I cannot see how Turpentine softens Basilicon, since I am persuaded the former is of a very warm Nature, and therefore good in Mortifications, for which it is always, if not wholly used, and it must consequently inflame these hot inflammatory Ulcers, as it were by adding Fuel to Fire; neither can Precipitate be advantageous in such Cases, since by its escharotic (not to say caustical) quality, it must constringe the papillary Orifices, and lock up their nutritious Juices. As to the Rest, and horizontal Position of the diseased Limb, being of so great Importance to the Cure of

Ulcers of the Legs, it is but a Form, or little better than a Farce, and cannot be of so much Consequence to the Cure, as to injure the Skill of the Surgeon ; we ought to know better ; for as soon as the Ulcer is well digested, Way is made for the redundant Humour separated from the Blood to pass off, and stirring a little about the House, will rather assist the Operation of the Medicines, to break the too great Cohesions of the Fluids, as well as prevent their Stagnation around the Ulcer. In Page xxxviii, it is said, “ for as the Indisposition of these Sores, “ is in some Measure, owing to the Gravitation of the Humours downwards, it will “ be much more beneficial to lie along, “ than set upright, &c. By this I suppose he means, that he would not have the noxious Humours gravitate, and pass off thro’ the Ulcer, but pray why not ? certainly it cannot be against the Rules or Practice of Surgery, nay somewhere *Hippocrates* has said, *—sin autem quò convenit, iis viam sternere oportet, ut singula eò vergant.* — What is the Intent of digesting the Ulcer, but setting open the
neigh-

neighbouring Pores, and making a Way convenient, for the Humours to tend downwards more readily? and truly this Sluice being open'd, and well managed according to Art, is the Point chiefly to be observed.

As to a Salivation, I am afraid it will leave the Habit in a worse State than it found it; for when we reflect on the poisonous Principles of Mercury, we cannot longer wonder how Palsies, Loss of Memory, hypochondriac Symptoms, &c. succeed; besides, very frequently these Ulcers proceed from a cold Constitution, and those somewhat dropfical; and Experience shews, that it has seldom proved of Advantage; besides, the Operation, let it be ever so well managed, is fatiguing, irksom, troublesom, and attended with many precarious and new Disorders.

Practice has shewn us that such Ulcers as are superficial, of an irregular Shape, and have Angles, are more expeditiously cured than those that are circular and deep, because the nutritious Juices flowing from every Point of the Circumference meet with

no other Substance proper to form a Cicatrice, and the approaching of their Lips to each other becomes more difficult. These also are more subject to hard and callous Edges, since the *Succus nutritivus* forces the more serous Parts through their Lips, and leave the balsamic Parts in their Substance, from which a thin Sanies comes off with the Dressings, whilst the Middle of the Ulcer is filled with bleeding Flesh.——Most Writers on this Subject have treated these Disorders with Incisions, Caustic, or Escharotic Medicines to change the Figure of the Ulcer, and remove the callous Edges. The Intention certainly is very reasonable, and often has produced a Cure; but still I think there is something barbarous in giving the Patient so much Pain and Torment, as certainly it must, by scarifying the Lips Day after Day, for a long Time; I conceive a tender Treatment may be more agreeable to the Afflicted, and will answer the Intent better; and for the Method of succeeding, we are to consider, that the first Part consists in evacuating the condensed Fluid in the Lips, and

and bringing the Wound to Suppuration, which are obtained by Diffolvents and Emollients. — The following Case will prove this Assertion.

Martha Chesterman, a Maiden Woman of about thirty-eight Years of Age, living in *London-Street, Reading*, had laboured under one of these Ulcers in her Leg for near twenty Years. The Pains were so excruciating, that she was not able to rest a Nights above an Hour or two at a Time in her Bed; she was so lame, that she had been confined to the House almost entirely for several Years. — In the Year 1735, I was called to visit her, when I found a large fordid circular Ulcer on her Leg, of the size of about half a Crown, with callous Lips seated inwardly just above the Ankle, with a discolouring of the Skin, and Inflammation of the Limb: It discharged only a thin ichorous Fluid with an offensive Smell. This Patient being of a plethoric and scorbutic Habit, I took away about eight Ounces of Blood from her Arm, and
 purged

purged her two or three Times with an Infusion of *Senna*, and then put her upon a Course of Alteratives, with a Decoction of the Woods, and the *Lapath. acut.*

The Ulcer was every Day fomented with a Stupe composed of *Flor. Sambuc. Melilot. Fol. Verbasci, Malvæ*, and a few of the Camomile, &c. The Dressings were of yellow Basilicon, without any Turpentine, spread on a Pledget of Lint of the size of the Wound; which was applied warm after the Limb had been bathed with *Ung. Sambuc. tepifac.* Over this Pledget was a Plaister of the Gums mixt with the mercurial Ointment, and a Roller of about four Ells secured them on. —

In about three Weeks, the callous Lips softened by the suppurative Nature of the Plaister: for the active Particles of the Gums admitted the Quality of the other to insinuate itself, and thereby the inspissated Lymph was divided and dissolved, and soon after disappeared, on which a fine well digested Matter followed, and the Pains abated. We persisted in this Method for
about

about three Months, at the Expiration of which, the Ulcer kindly healed, the Integuments became soft, and what remained was a blackish Mark on the Skin, as if the Part had been burnt with a hot Iron, her Complexion recovered with her Flesh, as she became free of her Lameness.

Some little Time after I made her a *Poplitean* Issue, which she continued for several Years, and her Leg continued sound and well.

I could give Instances of vast Variety of Cases of the same Nature; but as the Symptoms and Method of Cure are nearly, if not altogether the same, I shall, for Brevity's Sake, content myself with the one above related. But I should be guilty of a signal Piece of Injustice to the Reader, if I should forget to tell him, that among all the Medicines used for the Cure of obstinate Ulcers, especially those with callous Lips, none is found so powerful and efficacious as *Æthiops Mineral*, which is so strong and at the same Time so safe a Deobstruent and Detergent, that it rarely fails to produce
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the designed Effect. The judicious and ingenious Doctor *Cheyne* was so sensible of this, that for the Cure of an inveterate Ulcer in the Leg, with callous Lips, he did not hesitate to exhibit this Medicine in so large Doses, that the Mercury relaxed the callous Parts to such a Degree, that it was found crude on the Pledgets and other Parts of the Dressings. But great Caution is to be used in the Administration of this Medicine, which when injudiciously prescribed, may justly be compared to a Sword put into the Hands of a Madman.

Venereal Ulcers.

Such is the Intemperance, Luxury, and Wantonness of the Age, that there is another Species of Ulcers no less common among them, than those of the Legs, I mean venereal Ulcers, or such as appear after lying with an infected Woman, or after some venereal Disorder, such as a Gonorrhœa, venereal Bubo, or the *Lues Venerea*. These Ulcers are generally seated in the Groins,

Groins, Nose, *Fauces* and *Penis*, and when they appear in this last Place, they are called Shankers. All the Ulcers of this Kind are seldom or never cured, without a previous Expulsion of the venereal Venom out of the Body, by proper Medicines, without which all external Remedies are of no Efficacy. The venereal Taint is best and soonest removed by Preparations of Mercury and Decoctions of the Woods; but the Method in which these are to be used, and the Quantity in which they are to be exhibited, can only be estimated from the State of the Disease, the Strength of the Patient, and the Violence of the Symptoms.

Malignant Ulcers.

There are often Ulcers of so bad and malignant a Nature, that they will not yield to the Methods of treating common Ulcers. 'Tis certain from Experience, that Ulcers of this Kind are most generally incident to Persons of bad, scorbutic, cold, cachectic, and scorbutic Habits. However,
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the Malignity and Obstinacy of such Ulcers, when not accompanied with a Fistula, Callus, Caries, putrid Flesh, or Worms, are often removed by proper internal Remedies, and a strict Regimen of Diet, which in a great many Cases has, without any other Assistance, cured such Ulcers, provided they are daily cleansed and dressed with any common vulnerary Oil or Balsam, with some ordinary Plaister, such as the lead Plaister, or the Diapompholygus carefully laid over it, so as to cover the whole. After a careful Mundification of such Ulcers, lest the Matter by its Stay should become more acrimonious, we may apply the digestive Ointment mixed with Myrrh, Mastich, or Colophony; or a Decoction of Walnut Leaves, with a little Sugar, or a Decoction of Verdigrease in Wine. In some Patients, simple Spirit of Wine, or Lime-Water, applied in Linen moistened with them is of excellent Service in drying and healing these Ulcers. If there are any Fistulas in the Case, they are to be cut, then cleansed, and afterwards consolidated with the Balsam of *Peru*,
that

that of *Capivi*, or that of Sulphur, with Oil of Turpentine, or any other agglutinating Medicines. By such a Practice, and the Use of proper Internals, the most obstinate Ulcers may at last be brought to a Cure.

If the Ulcers are of a corrosive and phagedenic Kind the State of the Blood is to be corrected by Decoctions of the Roots of China, Sarsaparilla, Comfrey, Polipody, Liquorice, Scorzonera, the *Lopatum acutum*, the Herbs Mallows, Marshmallows, St. John's-wort, Sanicle, Agrimony, white Hore-hound, and others of a similar Nature; all Acids, punguous and acrid Meats are carefully to be avoided. Purging Medicines now and then administered, with a Mixture of *Mercurius Dulcis*, are not only beneficial in diminishing the Sanies of the Blood, but of great Efficacy, as Lenients in correcting its Acrimony, and promoting a Cure.

Can.

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Can.

Cancerous Ulcers.

These are of so obstinate and malignant a Nature, that they hardly yield to the Methods of treating other Ulcers, tho' the same internal Medicines that are efficacious for the latter, are also of Use in the former. However, *Marcus Aurelius Severinus*, a very celebrated Physician and Surgeon, assures us, that in such Cases more Relief is to be expected from manual, than from medicinal Operations, since many have been cur'd by Steel and Fire, when Medicines have been of no Use; if therefore it is determin'd, to treat an Ulcer of this Kind with Burning or Excision, we are to take all possible Care that the same be entirely extirpated, and that no corrupted Part remain, since such a Neglect would frustrate the whole Design of the Operation. Some, instead of these severe Operations, use a phagedenic Water, prepar'd in the following Manner.

Take

Take Water of quick Lime one Pint, sublimate Mercury half an Ounce, mix them together, or instead of Mercury sublimate, use an Ounce, or an Ounce and a half of white Precipitate. This is to be frequently applied warm with Lint dipt therein.

Instead of sublimate Mercury, *Mercurius Dulcis* is a much safer Medicine; as for digestive Ointments, they are not only improper in cancerous Ulcers, but are also found to be fatal.



Of an uncommon Tumour in the Thigh.

As Mr. *Peter Brown*, aged about 30, by Trade a Baker, about nine Months ago was carrying a Basket of Bread from *Thames Street* to the *London Work-House*, it happen'd that in *Coleman-Street* his Foot slipt, and he fell down with his Load: Immediately a violent Pain seiz'd him in the internal Part of his Thigh, which not only rendered him unable to proceed at that Time, but also made him incapable of continuing in the

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Service

Service of Mr. *Willis Baker* in *Thames Street*. He applied from Time to Time to several Surgeons for Relief, and after various Treatments, and near six Months being spent without receiving any Advantage, he was told that an Hospital was the only proper Place, to recover the Use of his Limb. Accordingly a Petition was signed by *Thomas Thomas*, Esq; representing him as a proper Object of that worthy Benefaction. By this Means he was admitted into *St. Thomas's Hospital* about the 13th of last *September*, and continued as a Patient in *Edwards Ward*, till near the middle of *December* following, being three Months, at which Time he was discharged the House, being in a low, weak and lame Condition, and without receiving the smallest Relief. The exquisite and racking Pain, under which he laboured Night and Day, made him a real Object of Pity, and more especially his Friends and Acquaintance universally concluded, that he must be a Cripple during his whole Life.

On

On the 3d of *January* I was desir'd to examine the Case, the Afflicted being recommended to me as a Pauper, by Mr. *Hall* a Butcher in *Cannon Street*, and Mr. *Hewson* an eminent Salesman in *Smithfield*. I found the Patient violently tormented with Pain in his Thigh, and his Leg so much contracted, that when he moved, it was with his Body almost doubled, tho' he used a pair of Crutches for his Support. There was an oblong hard Tumour of the Size of a Hen's Egg, but somewhat longer and sharper at each end, in the superior internal Part of his right Thigh, which at first, partly by its Situation, and partly by its Figure seem'd to be a *Hernia Cruralis*; but as it did not continue its Shape up to the Abdominal Ring, I could by no Means rank the Disorder in that Class of Tumours.—

As the Distemper was situated very deep between the *Sartorius* and *Gracilis* Muscles, I at first suspected the Case to be an *Aneurism*, and more especially as it extended almost down to the *Crural Artery*; but this Suspicion was removed by its being without

any Pulsation, and its not subsiding on pressing with the Hand, as well as by its being of too firm a Texture for such a Disease. At this Time I deferred giving my Sentiments, but promised him to examine the Case next Day, and took my leave with ordering the Patient, as he lay in Bed, to feel at Times for a Pulsation or Motion in the Part.

Accordingly next Morning I took an accurate Survey of the Disease, and the Parts distemper'd, and gave my Opinion absolutely, that it was neither a *Hernia Cru-ralis*, nor an *Aneurism*; but that the Swelling arose from the violent Strain of the Muscles, at the Time of the Accident, by the Force of which the Cellular Membranes, which cover and line the Muscles, suffered a *Rupture*, and their oily Contents were extravasated, which not being properly treated at first, were now inspissated and enveloped in the broken Membranes, and had formed a large encysted Tumour; and that the Contraction of the Leg, which had drawn up his Heel almost to his Ham, proceeded

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from

from the Weight of this preternatural Tumour, distending the Bellies of the Flexor Muscles, and thereby shortning their Length by bringing their Insertions nearer their Origins.

On the Strength of this Opinion I directed the Tumour to be bathed twice a Day with a discutient Fetus, and a Poultis of the emollient Plants to be applied after each Time of fomenting. — Cathartics, and other Precautions were strictly observed for ten Days, at the Expiration of which all his Anguish ceased, his Leg recovered its natural Position and Use, and he now walks about the Town without either of his Crutches, or even any Lameness; his Strength and Flesh recruit daily, and the 16th of *January* 1751, being but the thirteenth Day of his being under my Care, I received his Thanks for my Assistance, and in his Presence drew up this Account.

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2. *Aphrodisiacus*, containing a Summary of the ancient Writers on the Venereal Disease, under the following Heads, 1st. Of its Original, 2d. Of the Symptoms, 3d. Of the various Methods of Cure. Quarto.

